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—TO THE—

STUDY OF BIRDS, THEIR NESTS AND EGGS.

VOL. 1, 1888.

PITTSFIELD, MASS.

W. H. FOOTE. PUBLISHER.

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THE BAY STATE OOLOGIST.

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VOL. I.

JANUARY 1888.

No. 1.

¶ THE ¶

BAY STATE

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¶¶

OOLOGIST,

A Monthly Magazine Devoted to
Students of Birds, their
Nests and Eggs.

—EDITED AND PUBLISHED BY—

W. H. FOOTE,

PITTSFIELD, MASS.

¶ Subscription Price 50 cents per Year in Advance. ¶



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—THE—
BAY STATE OOLOGIST.

VOL. I.

PITTSFIELD, MASS., JAN. 1888.

NO. I.

Notes on Some Birds of Texas.

BY J. A. SINGLEY, ESQ.

It is my intention to give in the following notes a full description of the nesting habits, nests and eggs of the birds of this portion of Southern Texas. Notes will also be given on their most prominent traits, habitant or station where they most love to congregate, etc.

The observations on which these articles are based cover eight years of professional collecting, and can be depended upon as being accurate. Ridgway's "Nomenclature of N. A. Birds" will be adhered to in giving the names and numbers of the species; very few collectors being as yet familiar with the new "A. O. U. Nomenclature." Measurements of eggs, etc., will be given in inches and hundredths of an inch. In giving dimensions of eggs, the average of ten eggs will be given.

A few words as to the nature of the country in which I operate will not be amiss. The elevation is about 600 feet above the sea level. The country can be divided into "Post-oak Uplands" (the elevated lands covered with a mixed growth, mostly post-oak) and "Bottoms" (the lowlands along our several streams, covered mainly with pin-oak, pecan and other tall timber, and in many places with an impenetrable jungle of yaupon, red hawthorne, wild peach and other small growth; this same undergrowth being found, more

or less, in all the bottoms) and last, though not least, San Antonia prairie, running through the county from east to west and from one-half to two miles in width. This prairie is dotted with small groves of timber (post-oak, persimmon and hackberry) as well as detached trees scattered over it making an excellent collecting ground. With this explanation, I'll present a little of the domestic life of that pride of the South.

No. II, MOCKINGBIRD
(*Mimus polyglottus.*)

This prince among the feathered songsters is very commonly dressed; upper parts ashy gray; lower parts soiled white. The wings are dark with a large white space on the primaries, length, about 10 inches; extent about 14 inches. During the winter, the "Mocker" will be found mostly in the "Bottoms," where they feed on the various berries found there. A few remain in their summer quarters. A red cedar tree in my yard is the bedroom of one jaunty fellow, he roosting with the chickens. The "Mocker" is rather an overbearing kind of a fellow. I have never seen him attack other birds; but he takes especial delight in alighting on a limb where some bird of another species may be resting, and crowding up to it (exactly as a "bully" among the genus "Homo" may often be seen to do) he will make it take to flight, when he follows after, until the other bird leaves in disgust.

During the winter "*Mimus*" warbles only his own ditty (not an elaborate

performance) but when the breeding season arrives everything is changed. Then he is full of music that he don't lose a moment. I have whiled away many an hour, watching "my" bird as I call the one that nests at my door. He will fly on the housetop and deliver a few notes, then to an outbuilding, singing as he flies, then perhaps to the woods, and you hardly miss him until he is back again to the tree where his wife is incubating. Alighting on one of the lower limbs he rises, half flying, half hopping, until the top of the tree is reached, then flying straight up five or ten feet and fluttering back again. All this time he is singing the notes of every bird he ever heard. Sometimes, to vary his tune he'll imitate the mewing of a cat; again he sets the old hen crazy by imitating the cry of a chick in distress. It is a puzzle to me when he eats, as this is kept up all day. Sometimes he sings until midnight, and occasionally all night long. Like most birds, the female does all the work of nest-building, the male making the noise; but after the family comes he is a model husband, and very little music does he indulge in until the little ones are able to care for themselves.

The Mockingbird is not very particular as to a nesting site. He is a social fellow and generally builds close to some residence, that is in the country, the only exception to this rule being the nests found on the prairies. They never build in the woods remote from dwellings, neither do they build close to a deserted dwelling.

The nest is a bulky structure, the ground work being a platform of good sized twigs. On this, the nest proper is built out of weeds, small twigs and grasses; lined with fine, brown rootlets. The nests are found in almost every position; sometimes in a small bush not more than six or eight inches above the ground; sometimes in trees fifty feet up; then again in brush piles, or on the corners of a rail fence, and I even found

a nest in a hollow stub from which I had once taken a set of eggs of the Texan Screech Owl. The number of eggs in a set is generally four or five. Sets of three and six are also found, but not often. The eggs vary a great deal in size and markings. The typical egg is of a pale greenish-blue, mottled with spots, specks and blotches of yellowish and dark brown, and lilac or purplish shell markings. These markings and spots are often confluent at the larger end, forming a wreath. Some eggs are entirely covered with brown at the larger end, and again others are found where the pale brown is distributed over the whole egg in light and darker shades, entirely concealing the ground color. The handsomest eggs, I find, however, are of a bright greenish blue, plentifully speckled with chocolate brown and the purplish shell markings. A correspondent to whom I sent a set of eggs of the last variety wrote me: "I did not think that the Mockingbird laid such beautiful eggs. Average size of eggs .97x.74.

I've given a long account of the "Mocker" for two reasons i. e. because he deserves it, and also for the reason that several articles lately appearing in various magazines are simply caricatures of the bird and its habits, and were probably written by persons who have had little opportunity to study the bird in its uncaged state. Next on the list comes

No. 22, BLUEBIRD, (*Sialia Sialis.*)

This species like the last is resident here. It is not common during the breeding season, but he is reinforced during the winter by migrants from the North, at which time it is to be found associating with some of the warblers and sparrows in the "Bottoms." Their pleasing warble is to be heard at all times of the year, especially during pleasant days in the latter part of winter. Nidification commences about the first of March. The earliest nest with eggs found March 10, 1884.

There is very little variation in the nesting of the Bluebird. It prefers a Martin box, but lacking this will take a natural cavity in a tree, old woodpeckers' nests and hollow fence posts. I put up a box last spring; a Tufted Titmouse selected one corner for its future home and commenced building. During the absence of the Titmouse a pair of Bluebirds jumped the claim, threw out the nest materials of the original claimant and commenced putting up their own cabin. There was war for a week, one bird throwing out the others nest but *Siala* won at last and the Titmouse had to take up quarters in another apartment. The nest of the Bluebird in this county is entirely dead "crabgrass"; sometimes a few feathers are placed in the lining, but the majority of nests are built of grass throughout. Two broods are raised, as fresh eggs can be found from the middle of March to the middle of May. Eggs, four to five in number. Average measurement about .80x.60. I found one set of five eggs of this species that were pure white (though the normal color is pale blue.) Another set I found contained four eggs normal color and size and one egg of a deep blue color and measuring only .43x.31.

[Mr. Singley also adds that the Mockingbird raises two or three broods in a season, as fresh eggs can be found from the middle of April to the middle of July. Ed.]

(TO BE CONTINUED.)

The White-breasted Nuthatch.

BY J. W. JACOBS, WAYNESBURG, PA.

The White-breasted Nuthatch, (*Sitta carolinensis*) is rather common about here. I had the good fortune this season (1887) to find two fine sets of eggs of it. I found the first nest on April 24, from which I took eight fresh eggs, rather pointed, and having an average measurement of .75x.51 inches.

The eggs were white, with a roseate tinge; dotted chiefly at the larger end with reddish spots. In some the spots formed a ring around the larger end, while on others the spots were scattered all over the egg.

The nest was placed in a hole, which had been made by a squirrel in an oak tree, forty-five feet from the ground. I could see the eggs very plainly, but owing to the position I had to take to get at the nest, my hatchet made but little progress, but in the course of an hour I had the eggs safe in my collecting box.

The nest was composed of hair, wool grass, lichens, green moss and fine strips of bark; lined with bits of wool and fine soft hair. The old bird remained motionless, with her head thrust out the small entrance, until I was within a few feet of her, when she flew to a neighboring branch to join her mate in wholesale jabbering and scolding.

My second nest was found about April 26, of the same year, by seeing an old bird fly to a natural cavity and enter with some yellow substance in its mouth: its mate soon followed with some hair or wool. On climbing to this nest I found that it had just been started, as all there was in the cavity was a few bits of hair and wool and numerous small balls of mud or hard clay about the size of grains of corn.

I placed my head as close as possible to the cavity, that I might identify all its contents, and in doing so I moved two dead "chunks" of wood which projected from the hole; this caused me to feel almost certain that I would be disappointed when I called again. I placed these back as well as I could and hurried down that the old birds might continue building.

I made my second visit on May 7, I could see from the ground that the dead chunks were gone, and I wondered if the old birds had deserted the cavity altogether. Presently I heard a fam-

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We request all our readers to contribute items of interest relating to Birds, their Nests and Eggs.

Editorial.

A Happy New Year to all.

All subscriptions begin with this number.

All copy for the BAY STATE OOLOGIST must reach us before Feb. 1.

Our list of sample copies mailed this issue is a large one. If you receive a copy you do not want, please hand or send it to some one you think it will interest.

Stamps will not be taken for subscriptions, except for the convenience of those living at a distance from the money order office.

Have you anything to exchange? If so, use our "Exchange and Want" column.

We hope our friends will send in a supply of good reading matter for next issue. Look over your note-book and you will surely find something that will interest all.

Every person subscribing for the B. S. O. before Feb. 1, is entitled to two free exchange notices.

The opening article on "Notes on Some Birds of Texas," by J. A. Singley, Esq., is only the commencement of a series of equally interesting papers by him, which will continue throughout the coming year.

(CONTINUED FROM PAGE 3.)

iliar "chuck" and then saw the male fly to the cavity with something in its mouth. The female met him at the door and Mr. Nuthatch presented his wife with something which she devoured with apparent relish, and then disappeared in the gloom of the cavity which was about thirty-five feet from the ground.

From this nest I took a fine set of eight eggs, a little larger and not as pointed as the eggs of the first set. The nest was composed of mud, (small pieces) paper, bark, leaves and bits of hair, roughly lined with soft hair. The average measurement of these eggs was .76x.56 in.

Nesting of the Traills and Acadian Flycatchers.

BY PHILO W. SMITH, JR., GREENVILLE, ILL.

For the information of beginners, I will give a few notes on the nesting habits of these two closely allied species. They caused me no little trouble some years back, and it was not until I had seen the nests and eggs of both species in the collection of a friend of mine, that I discovered my mistake.

Up to that time, I had always supposed that *Trailli* laid pure white eggs and was a more eastern variety. I never could quite understand why *Acadicus* should construct such vastly different nests, even after several seasons of successful collecting, during which I secured several hundred sets of eggs of these two species, which are quite plentiful in this locality.

They are numbered among our spring arrivals, and immediately after reaching here seek their chosen localities. *Acadicus* is somewhat shy and retiring in habits, frequenting heavy timber and as a rule, near water; while *Trailli* is just the reverse, frequenting orchards, hedges and the like, free from heavy timber.

They both utter the same peculiar notes by which they may be readily distinguished from other birds, and which serves as a guide in searching for their nests. These are sometimes very difficult to find owing to the dense foliage that abounds at the time of their nesting, which is invariably in June.

Acadicus in this section generally prefers an oak or wild plum tree in heavy timber in which to place its nest, which is always between a fork at the end of a limb. The nest is always composed of "roller" grass or the catkins

the bickory, and is fastened at the rim with the aid of cob-webs. The bottom is unsupported, and the shal-

low nest is so frail and thin, that the eggs may frequently be] seen from below.

Some nests are quite elaborate and handsome. I have one that is made entirely of the reddish-brown catkins of the hickory, and which hang in festoons from the nest. Then again, they are so frail and shallow that I have often wondered how it held the three eggs; much less the young it might have contained. The average number of eggs, I find to be three; have often found four; rarely five and sometimes two.

The nest is placed on an average of from fifteen to twenty feet from the ground; have found them as high as thirty-five feet and as low as five feet. Upon examination of several hundred nests have never found them to vary to any great extent from the above in construction and location.

Now for *Trailli*. In this locality it is much more numerous than the preceding, and is not near as retiring in its habits. Its nest may be found about June 1. In orchards and along hedges are their favorite resorts, as well as a creek-bank or slough, where there are plenty of willows, crab-trees and under-growth; but free from timber.

The nest is an elaborate affair compared with that of *Acadicus*. It is warm and compactly built, as a rule being composed of fine grasses, shreds of weeds and thistle down; lined with fine grass and an occasional feather. The outside appearance of the nest resembles that of the Yellow Warbler. They vary considerably in shape and material; some are most entirely composed of fine grass, while others show a preponderance of weed shreds; some are deep while others are shallow.

The average number of eggs is four, though thred and five are quite frequently found. The nests are generally located from three to twelve feet from the ground. The eggs of the two spe-

cies cannot be distinguished : but the can idle ae by determined from the nest and its species location.

Trailli, on being robbed of its nest, will immediately construct another a short distance from the first; have known them to build as many as four nests, the others being taken. I cannot say whether this is true of *Acadicus* or not ; but know of one pair that built the second nest on losing the first.

The Great Horned Owl.

Bubo Virginianus.

BY ALBERT G. PRILL, ROCHESTER, N. Y.

This specie is one of the largest of its family. Its size varies somewhat, though generally about 2 feet in length, and spread of wings from 36 to 48 inches.

Its color is a variegation of blackish, marked with dark and light brown. Well marked specimens have a white collar, although in some it does not extend entirely around the neck.

This powerful bird, only yielding to the Great Grey Owl in size, and to none in spirit, inhabits North America at large.

Its haunts are dark and deep woods, it being seldom seen during the day, but coming forth in the night in search of food.

It builds its nest in some hollow stump or tree, or else constructs one of some limbs and sticks in some high tree. It also occupies old nests of the Hawk and Crow.

When seen during the day, this bird is sure to draw a large audience. Birds of every description will flock together to drive their enemy away.

And here, let me say, is where the Taxidermist takes advantange. If he can secure an Owl, he is sure of plenty of specimens for his art ; for by taking

an Owl and securing it to some limb, and then covering the adjacent limbs with bird lime, any quantity of birds may be obtained.

This Owl is a somewhat abundant specie here, though its nest is hard to find. Last February I found a nest of this specie in rather a queer way, I had been out all day looking for Owls' nests, but with no success, and as evening approached, I retraced my steps homeward. I had just entered a light piece of woods, and feeling somewhat tired, I concluded to rest a few minutes, and so seated myself on a log. I was disturbed by a slight noise overhead, and on looking up, saw a large Great Horned Owl directly above me. He watched me closely, and on my getting up, flew to another tree, and from there to a deep wood, only a short distance away. I thought I would follow, to see if I could not get another sight at him, and sure enough, I did. Seated on a moderately high stub of a tree sat my *Bubo*. Near the top of the stub I saw a large hole, and it occurred to me to investigate said hole.

It was getting quite dark, and after rapping on the tree and getting no response, I climbed up. I at once thrust my hand into the hole, but took it out again just as quick, and following it came an Owl.

It was a surprise ; so much so that I came near falling, but recovering myself, I put my hand in the hole again, and this time, I brought out an egg, and then another,

They were two as beautiful eggs as anyone could wish for. Spherical in shape and white as snow. The rest of the journey homeward was more easily accomplished, as you all know by experience under similar circumstances. Only a few months, and the season for Owls eggs will again be at hand, and with it will come all the memories of the part, when on similar expeditions.

The Kentucky Warbler.

BY E. F. KOCH, COLLEGE HILL, OHIO.

Although *Opornis formosa* has been a well-known summer resident in this locality for some time, its nest and eggs have seldom been found or described. Being fully aware of this fact and thinking a description of its nesting habits would be of interest to a few readers at least, I determined to give an account of the few nests I have found.

The nest, which was placed at the bottom of a small elm sapling, was so surrounded with grass and weeds as to be scarcely noticeable. It was a large and not altogether elegant structure, although it was well made.

The bottom was a nest-shaped bunch of leaves, mostly beech, woven together with weed stems. This formed what might be called the foundation of the nest.

Upon this, the nest proper was built, which was composed of roots, weed stems, and a few leaves; and this second nest was heavily lined with horse hair.

It contained three eggs, which were so highly incubated that they could not be blown by means of a large hole and embryo hooks. They were of a creamy-white ground color; spotted and speckled with reddish-brown over the entire surface and measured as follows: .70x.52; .75x.53 and .74x.54.

The most interesting part of the history of this little bird is the way in which it protects its nest. Upon nearing the nest of the little warbler, it will fly away to the next hillside; or if that be too far away, about forty or fifty feet and commence chirping and yelping so as to attract your attention.

At this you immediately proceed to where it is, and after searching about an hour with it sitting on a log near by

yelping as if its heart would break, you go away sorrowing at your bad luck, and when on the next day you come again to look for the nest, find it accidentally and see how you have been deceived you feel like downing the little creature with your gun.

But the reader may think that if he were in the same situation, he would sit down and watch it, until it flew on the nest; but this is of no use, for when you try this, it will get on an old fallen tree, if one be near, fly around on it awhile and then chirping as if contented fly down on the ground and remain silent. Not hearing any more of it, you get up from your hiding place and thinking it has gone on the nest, go and look for it, when on nearing the nest it flies triumphantly up on one of the branches of the tree and you find to your sorrow that it is just another one of its tricks, and that it has been scratching for food. I have spent hours in this manner watching the little fellow and then gone away much wiser but no richer, only to come again the next day; perchance, I might find the nest containing the precious little eggs.

But what makes you feel much worse is after hunting two or three days to find the nest, you find it to contain young, or worse yet, highly incubated eggs, which after you take home and blow your insides out on, and work two or three hours on, you find cannot be blown and you have lost your treasure.

I enumerate below all the nests of this species found this year.

June 2d, being the one I described.

June 5th, four small young.

June 10th, four large young.

June 21st, three fresh eggs and one Cowbird's egg.

These, with two others found the preceding year, are the only ones that have ever been found and recorded in this vicinity.

"Protect Our Birds."

BY ALBERT G. PRILL, BUFFALO, N. Y.

How familiar the term, but do our people realize the full meaning? Look over our land to-day, and what do you see? In every city, village and town, *so called* Ornithologist's and Oologists too numerous to mention. And then when you stop and think, and ask yourself this question. What are they doing? And every true Ornithologist and Oologist will answer the same as I. "Destroying Our Birds" by the thousands. And for what?

To furnish our people with ornaments. Go where you may, everywhere you see our most beautiful songsters pinned to the hat of some woman. Our millinery shops are stocked with them, and without them, they would have no trade.

"Oh!" people say, "there are plenty of birds; they can never kill them off." "Look at the Robins, Blackbirds and Sparrows." Yes! look at them; but it is not them that they take. They take our rarest and most beautiful birds, and soon they will be seen no more.

Is it right? Did He who created all, place these beautiful creatures here to be destroyed? No! they were placed here to cheer mankind with their cheerful songs. Think of it my friends. Think! that soon the birds which you listen to every morning when the sun is but breaking o'er the Eastern horizon, will pass away.

It is only the true Ornithologist and Oologist that can look at this question in this light, and realize its importance.

Then rally my friends, and "*Protect Our Birds*," yes by all means, "*Protect Our Birds*."

Common California Birds.

The most abundant birds of this locality are the Brewer's Blackbirds and the Crimson House Finch, better known here as the "Linnet."

The latter is a great pest to fruit raisers, eating cherries and apples in abundance, in season of ripeness.

The California Quail is a very common resident and can be seen near almost every farm house, if it has not been too closely hunted. In some instances they become quite tame.

Bullock's Orioles and Kildeers are here becoming rarer each succeeding season; while Hawks, and nearly all insect eating birds, are greatly on the increase. This latter fact is hailed with joy by fruit growers, who see insect pests of every description annually increasing, which without are feathered friends, would soon over run us.

T. E. Barlow, Petaluma, Cal.

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"Exchange" and "Want" notices inserted in this department for 25 cents per inch each insertion. Over that amount of space, 25 cents for each extra inch. We will insert no notices, which are merely indirect methods of soliciting cash purchasers.

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" 451, Bald Eagle, " " 2,	6.00	" 400, Richardson's Owl, set of 4,	2.50
" 21, Stone Chat, " " 5,	.65	" 408, Burrowing Owl, " " 8,	1.60
" 41a, Long-tailed Chickadee, set 4,	1.40	" 487, Great Blue Heron, " " 3,	.68
" 56, Cactus Wren, set of 5,	1.50	" 490, Snowy Heron, " " 4,	.60
" 148, Gt. No. Shrike, " " 4,	1.90	" 588, Whistling Swan, " " 1,	2.00
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VOL. I.

FEBRUARY 1888.

No. 2.

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BAY STATE



OONTOLOGIST,

A Monthly Magazine Devoted to
Students of Birds, their
Nests and Eggs.

—EDITED AND PUBLISHED BY—

W. H. FOOTE,

PITTSFIELD, MASS.

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The STATE BAY NATURALIST.

Notes on Some Birds of Texas.

BY J. A. SINGLEY, ESQ.

(continued from page 3.)

No. 27, *Polioptila caerulea* (Linn), Blue-Gray Gnatcatcher.

A sprightly and engaging little fellow is this Gnatcatcher. It is one of our summer visitors, arriving between the 1st. and the 15th. of March, and leaving for the South early in October. On their arrival they are found only in the bottoms, but they soon take to their nesting station—the uplands—and it is then rarely found in the bottoms.

I have nowhere seen this bird accredited with musical abilities, nevertheless, it is a pleasing songster, but not loud, and it is necessary to be close to the bird to hear it. It reminds me of a person humming over a tune to themselves, or a mother singing a lullaby to her child.

The bird is plainly dressed ; grayish-blue above, fading to hoary on the rump : below, dull white. The forehead is black with a narrow line of black over the eye. Wings, dark brown. Tail, black and very long considering the size of the bird, the outer feathers are mostly white. Length, 4.50 to 5.00 inches. Extent, 6.25 to 7.00 inches. Wing and tail each 2.00 to 2.25 inches.

This species commences nesting in the latter part of April, choosing either a post-oak or blackjack oak for a building site. The nest is one of the marvels of bird architecture. One now before me is built throughout of fine grass and lichens, the interior of the nest shows the above materials, and also a few feathers as well as a quantity of a soft downy furze, that

grows on the post-oak twigs. The outer diameter of the nest is 2.74 inches, with a depth of 3.25 inches. The inner diameter is 1.30 inches; depth 2 inches.

The nest is generally placed on a small post-oak limb, where it is crooked at right angles—just such a limb as I used to hunt, when a boy, for a “shinney stick,” and the nest bears considerable resemblance to a “Dutchman’s pipe.” The limb is covered with a growth of lichens and the nest is also covered with the same, neatly fastened on with cobweb, giving it the appearance of being part of the limb. Owing to the depth of the nest, the bird is so doubled up in it, that nothing but the tip of the bill and tail projects over the rim.

The eggs number four or five; greenish-white, spotted and blotched with reddish-brown and a few obscure, lilac shell markings. I once found a nest of this species that contained four eggs of its own, and one egg of the Dwarf Cowbird. Average of nine eggs, .54x.45 inches.

No. 36. *Lophophanes bicolor* (Linn.), Tufted Titmouse.

This species, under the local name of “Tomtit,” is resident here, and is found everywhere in the timber, where it is at all times busily employed searching for small insects. It is often seen hammering away on an oak-gall for the larvæ, that instinct or experience (?) has taught it, it will find there. It is more or less gregarious, being found in flocks of from four to twenty, and associated during the winter with the Carolina Chickadee, Ruby-crowned and Golden-crowned Kinglets.

The Tufted Tits have some very Crow-like habits. If they espy a squirrel sunning itself, or a Screech Owl calmly surveying the world from its hollow, they will gather about it and let forth a perfect flood of Titmouse “Billingsgate.” Of course it don’t hurt the squirrel or owl, but it seems to gratify the Tomtits. It pays me to investigate these scoldings when I hear them, as I’m always sure to bag game of some kind on such occasions.

One time, however, I found them engaged in rascally business. I crept up to a lot of scolding Tomtits and found two of them perched on the edge of a nest of the Cardinal Grosbeak, eating the eggs, while a number of other Tits were gathered about keeping up a great clatter. I investigated matters and found that two of three eggs had large holes pecked in them, from which the robbers were extracting the contents. I had often found nests with the eggs in the same condition, but had placed the blame on the Blue Jay.

The Tufted Tit is of an ashy color (the ashy tinged with bluish) on the back, or entire upper parts; below, dull white. There is a black frontlet in typical specimens; but those I take here have generally more or less brown in the black, being thus intermediate between *L. bicolor* and Stennett's new sub-species, *L. bicolor texensis* (Texan Tufted Titmouse) from Southern Texas. The species varies in size from 5.90 to 6.50 inches in length. Extent, 9.75 to 10.75 inches, the female being the smallest.

(to be continued.)

Nesting of the Rough-winged Swallow in St. Louis, Mo.

BY PHILo SMITH, JR., GREENVILLE, ILL.

This interesting little swallow arrives here in the spring from the South with its near neighbor, the Bank Swallow. Though nowhere as abundant as the latter, still I find it to be quite plentiful in and around St. Louis, which place seems to be well supplied with their favorite resorts; i. e. stone quarries, stone culverts and bridges, and last but not least, deserted brick-kilns.

During the nesting season, which continues from May 1st. to July 1st., their nests may be found in the crevices of rocks and culverts, and I also find they are very partial to the peep-holes of an abandoned brick-kiln. They quite frequently nest with some colony of Sand Martins; but whether or not they dig their own nest in the sand after the manner of the Sand Martin I cannot with certainty say, but from what has come under my observation, I am led to believe that they appropriate one of the unused holes of the Sand Martin, of which in most colonies there are generally quite a number.

When so situated it is next to impossible to secure an authentic set of eggs of the Rough-wing, and especially if the colony be a large one. The writer after repeated failures, succeeded in securing one set by finding Mrs. Rough-wing at home. I find that the Rough-wings do not live or nest in large colonies as do the Bank Swallows, but generally settle down in companies of from three to twelve pairs to a quarry or brick-kiln and three to six pairs to a culvert. Their nests are generally placed near the opening in the rocks and not back four to six feet as is the case with the Sand Martin.

After carefully examining about sixty sets of each species, I find that in construction and appearance the nest and eggs are indistinguishable from those of the Sand Martin, except perhaps, the eggs of the Rough-wing average a trifle larger, and that trifle is almost imperceptible to the naked eye.

The eggs average five or six to the clutch. They raise but one brood here in a season. Have known them to lay the third clutch, after being deprived of the two former sets. Some of the nests are quite difficult of access; in another number I will give my *modus operandi*.

Editorial.

In commencing this number, (our second) we wish to thank all of you who have helped us in our undertaking and we hope we can repay you by making the BAY STATE OOLOGIST as entertaining and instructive as possible in the future.

* * *

You, of course, notice our new appearance this month. We stated in last issue, that there would be an improvement in the next, and we leave it to you decide whether we have kept our promise or not. This is only one of many which will be made this year. Help us by subscribing.

* * *

Next issue will contain the first of an article on "Collecting and Preserving Birds and Eggs," written especially for the BAY STATE OOLOGIST by Prof. J. A. Singley. We can assure you that you will profit by reading it.

* * *

Publications on Ornithology and Oology are springing up in all directions. We wish them all success and a long life. We desire to exchange with all papers or magazines interested in these sciences.

* * *

We are in receipt of a copy of "*Key to the Nest and Eggs of North American Birds*," from the author, Mr. Oliver Davie. We are now able to furnish any number of copies of this work, regardless of what the *Hawkeye Ornithologist and Oologist* stated last month.

* * *

We wish to record the capture of a Bald Eagle in Berkshire Co., Mass. A full grown Bald Eagle (*Haliaeetus leucocephalus*) was shot at Richmond Pond, a few miles from here (Pittsfield) and was brought here; and, after being stuffed and mounted, was presented to the Berkshire Athenæum. We noticed a pair of these birds loitering about Onota Lake last year.

A Day with the Fish Hawks on Seven-Mile Beach.

BY C. S. SHICK, SEA ISLAND CITY, N. J.

One fine, beautiful morning in the month of May, '87, I started out of a pleasant dream to find the sun shining brightly into my room from a clear, blue sky.

Rising on my elbow, I could see far out over the deep, blue ocean, dotted here and there with the snowy-white sails of vessels; some bound to foreign ports, others to the beautiful regions of the tropics. All were sailing swiftly o'er the bosom of the dark, blue ocean.

Oh! what a beautiful morning it was—just such a morning as I had wished for. I started out of bed, dressed and went down stairs. The only person stirring was the cook.

After taking a good wash, I went up to my room, got out my packing-box, my basket and a long piece of strong twine. By this time my breakfast was ready; while I was eating it, cook got my lunch ready, and off I started for a day's trip to Seven-Mile Beach, the home of the Fish Hawk.

After walking for a mile, I reached my boat, and there met my friend and companion, Dave McCormack. We raised sail, and the wind being in our favor we were soon within sight of Seven-Mile Beach.

Seven Mile Beach, so named because of its length, is one of the finest fields open to the Oologist or Ornithologist in the State of New Jersey; no! I will say Middle States.

The island, from one end to the other, is composed of hills and valleys, most of which are covered with a dense growth of oak, maple, birch, holly, and last but not least, cedar. A good many of the trees are covered with long pendants of Spanish Moss, which hang gracefully from limb to limb.

About a half-mile back from the beach a beautiful, though treacherous strip of meadow, three miles or more in width and seven miles in length, meets the view. This meadow is the home of countless numbers of Clapper Rail, Sea-side and Sharp-tailed Finch and Henslow's Sparrow.

The forest affords a home for the Black-crowned and Green Herons, Least Bittern, Tree Swallow, Fish Hawk, Fish Crow, Golden-crowned Thrush several varieties of Warblers, Purple Grackle, Red-winged Blackbird, Blue, Jay, Bluebird and numerous others of the common varieties. I have

cause to believe that the Pileated Woodpecker breeds here for I have observed it on the Island in June.

On the sand flats, adjacent to the beach, countless numbers of Com., Least, Roseate and Gull-billed Terns breed, while back on high knolls on the meadows, large numbers of Laughing Gulls make their homes.

But to go back to my story ; after walking a hundred yards or less from my boat, I flushed a female bird of the Sea-side Finch, and after a diligent search, succeeded in finding its nest, which contained a fine set of five eggs. Soon after, we found another nest containing but four eggs of the same variety ; these with the other five were packed snugly away in my box.

My friend Dave was no collector, but only went for the "sport," as he expressed it. We soon reached a strip of woods and after entering it we seperated, I going on one side of it and Dave on the other. I soon heard a commotion as if some large bird had taken wing, and this soon proved correct, for I saw above me a large pile of sticks and branches. Laying my things down, I commenced to climb a cedar tree, (a very hard tree to climb) whose branches were so close together that it took me fully ten minutes to reach the nest, which was in the top of the tree.

The bird, which I knew to be an Osprey, was soaring round and round in the air directly over the nest. I soon succeeded in getting on a level with the nest and was delighted to find that it contained a very fine set of *four eggs*, the first set of four I had found for two years. They were very handsomely marked, and measured 2.48×1.75 ; 2.50×1.74 ; 2.50×1.75 ; $.49 \times 1.74$.

By this time I was thinking of my friend Dave, and taking out my whistle I blew a shrill blast on it and soon received an answer. After a good deal of trouble, (wading through a swamp) I reached the place where I supposed him to be, and found him very busily engaged in descending a thick cedar. After he reached the ground, he took from the side pocket of his coat three very handsomely marked Osprey's eggs.

Upon asking how many he had found, I was surprised to hear him say nineteen : two sets of two and five sets of three, all of which were right nice specimens.

It was now time to eat our lunch, and after resting for an hour, we visited a strip of woods lying back on the meadow. I just wish some of my readers had been with me to see the flock of Green Herons that took flight at our approach to their nesting place. The nests were in every place imaginable ;some so low that we had to bend down to reach them. Dave did the climbing, while I secured all those that I could reach. In

less than half an hour we had our basket full, and upon counting them found we had two hundred and twelve. I told Dave we had enough eggs for one day, so we started for home. If I had wanted five hundred more Green Herons' eggs, I could very easily have got them, for at the least calculation, there were about six or seven hundred trees in the woods, and every one had one or two and some four or five nests in them; say nothing of the numerous nests on low bushes and trees.

After a walk of two miles, we reached our boat and set sail for Sea Isle City, which was reached in good time for supper.

After supper I took account of stock, and found that I had 212 Green Herons' eggs, 26 eggs of the Fish Hawk and 9 Sea-side Finches' eggs for the day's work, and well satisfied I was. And now I bid you all, dear readers, good-bye until my next.

Tufted Titmouse.

BY J. W. JACOBS, WAYNESBURG, PA.

In this locality, the Tufted Titmouse (*Lopophanes bicolor*) is met with in every nook and corner of the woods, orchards and groves. Although as common as this species is about here, I have found but one nest.

On May 13th., '87, I was out looking for anything in the "Oological line" when I saw a cavity in the top of a small walnut tree. I went to the spot and tapped on the tree and to my surprise and delight a Tufted Titmouse flew out.

I scrambled up to find out what could be seen, and found that the top of the tree had been broken off, causing the inside to decay to the depth of two feet; the bark had taken advantage of the dead, and grew and swelled inward over the top, until there was only a very small entrance left.

I peeped into the cavity and could see the outlines of four glossy eggs. After considerable whittling and hacking with my hatchet, I managed to get my arm inside the hole, and to draw out the eggs, one at a time; the first, second and third were "regular nominated candidates" (for hatching); but the fourth proved to be a "bolter," for it was placed there by a naughty Cowbird. (I have found Cowbirds' eggs in a good many queer places, but this one just "takes the cake," simply because it was placed down in darkness, eighteen inches from the small entrance.)

The Long-billed Curlew in California.

BY A. M. SHIELDS, LOS ANGELES, CAL.

To persons, who cross any of our large stubble-fields or pastures, the Curlew is a familiar bird. It may also be called a plentiful bird, frequently being found in large flocks. Our sea-side marshes are also favorite haunts of this bird, which is very fond of the small crabs so abundant in such places, and which it is very dexterous in probing for, in the soft mud, with its long bill. It also feeds on worms, insects, snails and berries.

This bird, even to persons not familiar with the mysteries of Ornithology, is never hard to identify, as its homely brownish, sometimes speckled, plumage, its long neck, long curved bill and loud whistling note are unmistakable characteristics of the Curlew.

Although it is so plentiful, it very seldom breeds in this locality, preferring the great plains of northern latitudes for that purpose. I know, however, of two authentic instances in which "bona fide" nests of eggs of it have been found in this locality.

One nest was discovered by some harvesters in a young wheat-field several miles inland ; the other was found in some high marsh-grass very near a large, flat "tide-marsh" which was much frequented by these birds.

The Curlew is here considered a game bird, often falling victim to the hunters' deadly fowling-piece. Its flesh is rather dark, and inclined to be a little coarse ; but it has a sweet "gamey" flavor about it, which recompenses for the other two slight deficiencies.

A peculiar trait of this bird is its singular attachment for any of its feathered companions who happen to be in trouble. This trait is often very disastrous to them ; for example, should a hunter be successful enough to first wound or wing one bird of a flock, the rest will continue to hover and circle around overhead the crippled one, paying no heed to the fated crack ! crack !! of the fowling-piece of the hunter, who will sometimes drop them, one by one, until he has almost annihilated the whole flock.

The Curlew, like members of its aquatic contemporaries, is very averse to flight during foggy weather, and will often suffer the hunter to approach within gunshot, in preference to taking wing during a fog.

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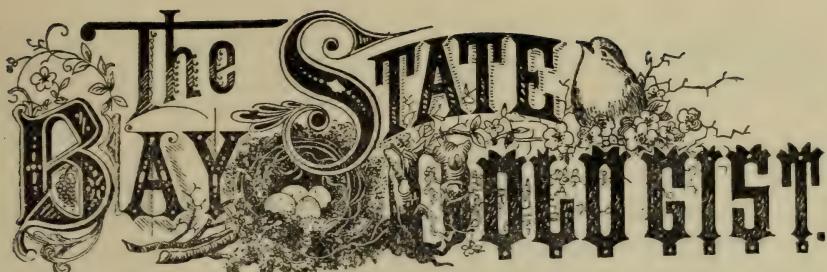
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The State Bay Scoldist.

VOL. I.

PITTSFIELD, MASS., MARCH, 1888.

NO. 3.

Among the Raptiores.

BY DR. W. S. STRODE, BERNADOTTE, ILL.

On the afternoon of March 22d, 1887, I had a collecting experience, the pleasure of which will not soon fade from my memory. Having a professional call to make to see a family residing three miles west of the village of Bernadotte, I thought it a good time while in this section of the country, to take a look for the eggs of the Raptiores, there being here a large tract of woodland, jutting out into the surrounding prairies, that have escaped the woodman's axe.

Strapping on my climbers, and putting a ball of stout string in my pocket, I mounted my horse and started, making my visit. I then turned my attention to looking for nests.

Away across the fields to the south of the highway, a quarter of a mile, in an eighty acre tract of timber, I could see in the top of a tree, a large bulky nest of some kind. Leveling a good opera-glass at the structure, it became very plain to me as the nest of a hawk, and I even fancied I could see the head and tail of the bird above the edge of the nest.

Going through a gate into the field that intervened, I rapidly rode to within a short distance of the tree in which the nest was situated. Tying my horse to a fence, I went over, and throwing a club into the tree, the hawk left the nest; but kept sailing around in near proximity to it. The bird, I soon discovered was not a Red-tail, our most common nester, but a species that I was not sure of, from the imperfect sight which I was able to obtain, as it circled around at a considerable height.

Ascending the tree to the nest, I found it containing three eggs, of a greenish-white color, with a few indistinct brown markings. The nest was quite a bulky affair, composed of sticks and large weed stalks. One dead elm stick I noticed as being over four feet in length and an inch in diameter at its thickest part. The lining was of grape-vine bark and oak leaves.

Both birds now appeared upon the scene, alighting near by on another tree. I drew out my glass and took a close look at them, and soon recognized them by the wide transverse band across neck and breast (ashy-brown in one and light rufous in the other,) as being a pair of the handsome Swainson's Buzzard (*Buteo Swainsoni*), and I felt correspondingly elated over the possession of the three eggs, which I put into a yarn mitten and attaching the ball of string to it, lowered with great care to the ground, which in a very few minutes I also reached.

I now started in to look this piece of woods over carefully for further finds, and had not gone over two hundred yards before in a nest about forty feet up in an elm, I saw the ear tufts of a Great Horned Owl, followed soon by the big yellow eyes and head, staring down at me as if enquiring what business had I intruding there.

At the first click of the climbers against the tree the bird left the nest and flew to a distant part of the woods; but returned with her mate as I neared the nest, and they gave me a fine serenading with their hoo! hoo! hoos! with many grotesque bowings and swayings of their bodies from side to side.

I found two snow-white eggs in the nest, rather below the average size of eggs of the *Bubo V.* I lowered them as before and soon followed them to the ground. The owls again flying to a distant part of the timber as soon as I left the nest and commenced to descend.

I found nothing further of interest in these woods, so returned to my horse and to the highway. Carefully secreting my eggs, I now rode two miles further to another large body of timber, and at once set about searching for nests. Soon finding one in the top of a large black-oak; but no hawk being present I did not climb it, as it is my rule never to climb to a nest unless I know it to be occupied.

Going a few hundred yards further, I discovered another nest in a large white-oak, and I could plainly see that it was occupied. Shying a club up into the tree, a Red-tail left the nest. Quickly making the ascent I found the nest occupied by three very handsomely marked eggs of this species. The nest apparently being an old one repaired, and lined with bits of moss and grape-vine bark. These eggs presented a very different appearance from those that I had diagnosed as Swainson's.

I might add, that the nest occupied by the Bubos, was in my judgment an old crow nest. I found no other nests of particular interest in these woods at this time; but subsequently found another nest of the Red-tail from which I obtained two eggs.

I found many Crows' nests in different stages of completion; but not caring much for their eggs, I did not wish to spend time climbing to them, except in one instance, when my attention was attracted by the peculiar material in one nest, which presented much the appearance of a large ball of tow. Prompted by curiosity, I went up to it and found it constructed almost entirely of the fibres of the Indian hemp, which grew profusely near by at the edge of the prairie. The nest contained four fresh eggs which I took.

I now started to return home, having eggs enough to fill both mittens. I found that I had been absent from town two and one-half hours; distance not less than eight miles; one professional visit made; four trees climbed. Sets secured, Swainson's $\frac{1}{3}$, Red-tail $\frac{1}{3}$, Great Horned Owl $\frac{1}{2}$ and American Crow $\frac{1}{4}$. How is that for rapid collecting?

Correspondence.

[EDITOR OF BAY STATE OOLOGIST.]

DEAR SIR:—

I noticed in the February issue of your valuable paper, Mr. A. M. Shields, in his article on the Long-billed Curlew, says: "should a hunter be successful enough to first wound or wing one bird of a flock, the rest will continue to hover and circle around the crippled one, paying no heed to the fated crack! crack! of the hunter's fowling-piece." Now on most parts of the Pacific coast, the Curlew is wild and wary, approaching the stools suspiciously and seldom returning when shot at. The only way I am able to get within gunshot is by concealing myself behind a cow or horse and then force the brute slowly toward them. The Curlew is a highly prized game-bird. It feeds mostly during the morning and evening.

The lively little Eskimo variety is far more numerous, comes to decoys more readily and will return once or twice at the hunter's call. I have heard of instances where as many as 200 were bagged by one sportsman in a single day; but such bags were only taken years ago. Spring shooting has thinned them out considerably of late years, however, a law against spring shooting has been in force, which is of great benefit to many of our large and less wary game birds.

J. CLAIRE WOOD, JR., Detroit, Michigan.

Instructions for Collecting and Preserving Birds and Eggs.

BY PROF. J. A. SINGLEY, GIDDINGS, TEXAS.

As many of the eggs sent me are poorly prepared and as this magazine may fall into the hands of some who are commencing a collection, I will give a few brief instructions as to the right way of preparing specimens. An experience of ten years (seven of them as a professional collector) will, I think, convince my readers that I am qualified to give instructions.

A few remarks as to the tools required, which can be bought from any dealer in Naturalists's supplies. Drills are the first requisite, and several sizes will be needed, from 2-32 of an inch for all fresh eggs, up to $\frac{1}{4}$ inch for eggs in which incubation is advanced. Larger drills can be had; but who wants an egg with a half-inch hole in it? There are two kinds of drills, the so-called "fine-cut" drill, made to sell, and a toothed or burr drill, made for work. I have all the different makes and sizes of drills; but use altogether the 2-32, 4-32, 6-32 and 8-32 sizes of toothed drills. They last a long time; do no not crack the egg and work fast.

Next after drills, the most necessary thing is a blow-pipe; different styles and sizes of these are also to be had, from the fine nickeled one, with attachment, to the common brass one, straight or curved. Any of these will do, provided you do not insert the point of the pipe into the hole in the egg. The curved blowpipe is the most convenient. Glass ones are not to be thought of, from their liability to break. I have used a curved brass blowpipe, six inches in length, for several years, and it is still as good as new. The original cost, was, I think, 20 cts., and I've prepared about 1500 eggs with it. Other articles that are needed are an embryo hook and a small pair of scissors. With such an outfit, anyone can prepare eggs (the tools necessary for preserving birds will be given further on.)

Various ways are recommended for draining or drying the eggs after blowing, such as laying them, hole downward, on a bed of sand, cotton batting, blotting paper, etc. I'll tell you of the "dryer" that I use, and how to make it. Take a piece of cardboard of suitable size, (mine is 12x18 inches) draw lines across, lengthwise, 1-2 inches apart: now draw another set of lines, the same distance apart, and at right angles to the first lines. Where the lines intersect, punch holes with a .32 calibre wad-cutter. Mount this perforated cardboard on a wooden frame, stretching it tight, (a few strips of wood nailed to the frame under the cardboard will keep it from sagging) tack sides to the frame, projecting about two inches above

the cardboard bottom, all round, and you have what appears to be a shallow box with a perforated bottom. The eggs are placed in this form, holes downward; and as the hole in the egg is thus placed in the hole that has been punched in the cardboard, a free circulation of air is insured, all around and in the egg, drying it in the shortest time; and there will be no cotton, sand or anything else, sticking around the edges of the box.

Having indicated the tools necessary, a few hints about the field-work part of collecting comes next; and here I wish to warn the young collector against being of a too greedy disposition and "bagging" everything he finds. Of many species he will find hundreds of eggs (that is in a region where bird life is plenty) and in cases of this kind he can take for his own collection as many eggs as desirable to show the variations, and a few for exchange. He can always have his choice here and take only fresh eggs, letting the others alone. I condemn the practice of taking only half the eggs in a nest and leaving the rest. Nine times out of ten, the bird will desert the nest. Better take all out of one nest and pass the next one by. The bird that has been despoiled of its eggs will go elsewhere and build again.

Identification and authentication are the cardinal requisites in collecting. A bird or a shell bears its own label; but the science of Oology has not advanced to that stage where a species can be determined from the egg, alone. Never take an egg until you are sure what species it belongs to. An unidentified egg is worse than worthless, it is of no use to the owner, and it is that much bird-life needlessly destroyed. If you find a nest and don't know the bird, secure it, either by snaring or shooting and make a skin of it. Place the same number on the eggs and bird and they can then be identified at any time. Directions for making a bird-skin will be given further on.

Supposing the collector starting out for a day's collecting; he will need a box filled with cotton (a cigar box is excellent), a note-book and pencil (climbers such as are used by "telegraph men" also come in handy).

If the collector takes to heart what I wrote above, he will carefully identify each set of eggs. Suppose the first set he takes is a set of four eggs of the Red-headed Woodpecker; the bird seen; nest 20 feet up in an elm tree. If he knows the bird's number, he would write in his note-book the following short particulars: 1—375 4—20 ft.—elm, and he would mark each egg of the set No. 1. The small end of the egg is preferably the place for these first numbers. The tenth set, he finds, is a set of three eggs of the Yellow-billed Cuckoo. The nest, eight feet up in a wild plum tree. Here his entries would read: 10—387—3—8 feet—wild plum.

(TO BE CONTINUED.)

Editorial.

Once more we appear before you in a new form. This time in a condensed state. Still eight pages; but a great deal more interesting matter contained therein.

* * *

We were obliged to omit Prof. Singley's article on "Notes on Some Birds of Texas" in forming this issue; but will continue it, together with his other one, in the next issue.

* * *

Persons receiving sample copies of this issue will please acknowledge the receipt of same. Those not complying with the above request will receive no more free copies.

* * *

We are informed that the "Hoosier Naturalist" is again under the management of Messrs. R. B. Trouslot & Co. We hope by next month to be able to receive subscriptions for the H. N. in connection with the B. S. O.

* * *

Advertisers—We beg to call your attention to our magazine as a first-class advertising medium and in order that you may test its value, we propose accepting "ads" at large reductions from our regular rates until May 1st. Write for special rates enclosing "ad" and receive answer by return mail.

Publications Received.

The Auk, January.

Ornithologist and Oologist, January, February.

West American Scientist, December.

Collectors' Illustrated Magazine, February.

Oologist (bi-monthly), October—December.

Oologist (monthly), January.

Agassiz Record, January, February.

Oologist's Exchange, January, February.

Hoosier Naturalist, January, March.

Hawkeye Ornithologist and Oologist, January.

The Carolina Wren.

BY L. O. PINDAR, PRES., Y. O. A.

Late in Sept., 1886, I first identified this bird at Hickman, Kentucky. I was walking along the railroad between two corn-fields, when I noticed a movement in the long grass beside a fence near the track.

I stopped and watched, and presently a little round ball of feathers hopped into view, projected a little head, looked at me first out one eye and then out of the other, chirped and dropped out of sight.

All this was done so quickly that I had no time to define the colors, any more than that they were brown. I moved a little nearer, when two birds (the one I saw first and probably its mate) jumped up and chirped at me, and as I came still nearer they gave me a good scolding for troubling myself over what they no doubt considered was none of my business.

Finding that I did not return, they gave a contemptuous flirt of their tails and flew; and I kept on, well satisfied with my walk, for I had identified a new bird, the famous "Mocking Wren," whose loud song I was destined to hear all through the next year, even in the heat of the August sun, when the other forest songsters were hushed and silent.

Having thus told of my introduction to this bird, I will now introduce him to my readers. He is much larger than the common House Wren, being about 6.00 inches in length and 7.50 inches in extent. The upper parts are reddish-brown, brightening on the rump. The under parts, superciliary line, outer edges of primaries and lateral tail feathers, tips of the wing coverts and a few concealed spots on the rump, whitish. The under tail coverts are like the back, with numerous black bars.

It is a common resident in south-western Kentucky, and seems to be gradually growing more common. It is easy to find its whereabouts from its loud, ever heard song; but not so easy to get a good view of the bird itself.

Its principal habitat is the South-eastern States. It is a resident as far north as Washington, D. C., and a summer visitant in the Middle States. Coues, in his "New England Bird Life" says: "A summer visitant in N. E., where it occurs rarely, and only as far north as Mass." This latter state is probably its northern limit, and Kansas its western.

The nest is a bulky affair, made of grass, hay, leaves, paper, feathers, corn-silk, horse-hair, etc., etc. It is placed anywhere; often in an unoccupied building, in a hole, a bush, a woodpile, and I heard of one which was made in a tin can and of another which was constructed in a broken kettle.

The eggs are white, speckled with reddish-brown and purple, the spots being as a rule more abundant at the larger end. They are four to seven in number and the average measurement is .72x.60 inches.

I should have stated above that unless the nest is under artificial shelter, it is almost invariably arched over, only leaving an opening large enough to permit the entrance and exit of the bird.

Nesting of the Fish Crow.

BY C. S. SHICK, SEA ISLE CITY, N. J.

The Fish Crow (*Corvus ossifragus*) arrives in southern New Jersey about the 15th of March (although I have seen them before that date). Soon after their arrival they commence to mate and repair their old nests, (I say repair their old nests) which they invariably do when they have not been torn or blown down.

Early in April they commence to lay, and are done laying by April 12th. The eggs are of a dark green, ground color; thickly spotted and blotched with brown and olive; four to six in number. The largest set I ever found was a set of six; they were found on Peck's Beach on April 15th, 1884. They measured 1.68x1.20; 1.67x1.19; 1.67x1.18; 2.67x1.19; 1.69x1.19; 1.69x1.20. The eggs in the above set were slightly incubated, but not enough so to interfere with blowing them.

After laying a full set of eggs, the old birds take turns in setting on them, and after twelve or fifteen days the young break the shell. The young birds occupy the nest from fifteen to eighteen days. The inhabitants of this county (Cape May) give the Fish Crow four or five different names, among them being, Oyster Crow, Mussel Crow, Little Raven and Island Crow.

The Fish Crow, feeds on mussels, small fish, sand crabs, and when the Clapper Rail is nesting it feeds on Clapper's eggs, of which it destroys a good number.

The Fish Crow builds its nest in dense growths of cedar; the materials used are roots, sticks and grass; lined with grass and the bark of cedar trees. In a few months the Crows will be laying; I will then give the readers of the BAY STATE OOLOGIST a little article on the first trip after them.

Mr. C. S. Shick, writing at a later date, states that he paid the Great Horned Owls a visit Feb. 25th, and was successful in securing one set of two eggs.

He thinks he was a little too late in the season to find any number of sets of eggs, as a friend of his has found several nests containing young birds.

This is the first record of finds for '88 published by us.

Ed.

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—EDITED AND PUBLISHED BY—

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The STATE BAY NEWSPRINT.

VOL. I.

PITTSFIELD, MASS., APRIL, 1888.

NO. 4

Notes on Some Birds of Texas.

BY J. A. SINGLEY, ESQ.

(continued from page 11.)

No. 36. *Lophophanes bicolor* (Linn.), Tufted Titmouse.

They are not very particular about a nesting place—provided it's a hollow—and will indifferently occupy a natural cavity in a tree, an old woodpecker's nest or a martin box. The nest is composed of dead leaves and moss and very often cast-off snake-skin, invariably lined with some sort of animals' hair.

The bird will not leave the nest after incubation commences, but will sit close while the entrance to the nest is being enlarged, and when a hand is inserted in the cavity will puff itself up, make a hissing noise and peck at the intruder. It has to be litted off the nest before the eggs can be taken, thus making identification positive.

The number of eggs in a set varies from four to eight, usually six or seven, and varying from a blunt oval to elongated, almost equal-ended: white, spotted with reddish-brown, thickest at the larger end, where are also found some obscure lilac shell markings. Sometimes the brown is very pale and the spots few and small. Eggs like this resemble those of the Plain Titmouse. A series of fifteen eggs average .75x.56 inches. Two or more broods are raised, fresh eggs being found from the 1st of April to the last of May.

No. 42. *Parus carolinensis* (Aud.,) Carolina Chickadee.

Like the last, this is called "Tomtit" by the natives. It shares most of the habits of the Titmouse but I don't think it is a nest robber.

This species is very like the Black-capped Chickadee of the Eastern States, replacing that species in the South Atlantic and Gulf States. The chin, throat and top of head to nape, black, sides of head, whitish; rest of upper parts brownish-ash; under parts dingy white and slightly brownish on the sides. Wings and tail like the upper parts. A specimen before me measures—length, 4.53 in.; extent, 7.02 in.; wing, 2.46; tail, 2.24. It is very close to *P. atricapillus* and should really be listed as a variety of that species.

This Chickadee is resident here, and is found chiefly in the timbered uplands, where its merry "Chick-a-dee-dee" is heard all the year round.

It commences nesting in March, and fresh eggs can be found until June (thus indicating that two or three broods are raised in a season.) It is a little more choice in its location for a nest than the Titmouse. A deserted Woodpecker's nest is often used, but the majority of the nests I find are in rotten black-jack stubs and excavated by the birds themselves. A few of them nest in boxes that I've nailed up in the woods. The nests vary but little being built of moss, cotton (when obtainable) a few feathers and generally lined with rabbit fur, sometimes with the hair or fur of other animals. The bird sets close when the nest is disturbed and it is necessary to lift it off to see what it is trying to conceal.

The eggs vary in number from five to seven, never more with me; oval in shape, white, thickly spotted with reddish-brown. The spots are sometimes confluent, forming blotches, occasionally covering the larger end of the egg. Sometimes the eggs are finely speckled with small pale-brown spots, and one specimen before me has these specks forming a wreath about the smaller end. A series of eleven eggs (two sets,) average .63x.52 inches. I have also found several sets where the eggs were sub-globular, like those of some owls.

SPECIAL NOTICE.—Next issue will be enlarged to 12 pages and will be filled with interesting and instructive original reading matter, from the pens of numerous well-known writers on the subjects of which we treat. We would advise you to subscribe at once, as we offer special inducements to new subscribers in our prize offers. If you cannot afford a year's or half-year's subscription, send 5 cts. in stamps and we will mail you a copy of the enlarged May number when published. We shall be obliged to refuse stamps in payment for subscriptions, as we have a supply on hand.

The Nashville Warbler.

BY WM. L. KELLS, LISTOWEL, ONTARIO, CANADA.

The life-history of this bird is yet, to a great extent, wrapped in obscurity. Sometimes it is numerous in the Spring migration; again it is comparatively rare. It can only yet be regarded as a migrant in the south and central parts of Ontario, as no certain record has yet been made of its nesting, or making its summer home in this locality; though it is very probable that more of this genus of birds may remain during the summer, and nest in the deep, swampy woods of this Province, then is now generally known.

In my early days, while rambling in the forest, or at work in the woods in the summer time, I have seen nests of little birds, never since discovered by me, and almost every year since I began to form my Oological collection, I have taken one or more nests of Warblers previously unknown to me, and as I occasionally catch glimpses of others in my hunting excursions in the summer season, I am led to believe, that as time progresses and more attention is given to the subject, more nests of these birds will be discovered and described by our rising Ornithologists, and among others that of the Nashville Warbler. This is the more probable in the case of this species, from the fact that its general habitat is in deep, swampy places, where few persons interested in Ornithology care to penetrate, and also from the fact that specimens of this species are occasionally observed on the margins of swampy woods, in the summer season.

It is said that this species nests upon the ground in the moss that grows in damp places, and to form the same with dry leaves, fibres of bark, pine needles, fine, dry grass and hay. The eggs, four or five, are white, speckled with lilac or reddish-brown.

This is one of those wanderers of the Mississippi Valley which appear to enter Ontario from the south-west. It is between four or five inches in length, and on the upper parts the plumage is of an olive-green, brighter on the rump; but ashy on the head. Below it is bright yellow, paler towards the lower parts, with olive shading on the sides. Crown with a chestnut patch, and pale ring round the eyes.

Instructions for Collecting and Preserving Birds and Eggs.

BY PROF. J. A. SINGLEY, GIDDINGS, TEXAS.

(continued from page 21.)

Each of the three eggs should be marked No. 10. By this method, the first number always representing the number of the set, the second, the number of the species and the third the number of eggs in the set, mistakes are almost impossible. If he saw the bird he should write "seen" after the last item. If the bird was caught or shot, he can mention it instead of "seen." The last two items explain themselves, and all these items except the first, must enter into the data of the set. It is not necessary to give materials of nest, except in the case of rare species. I follow the above method of authenticating, to save time; but, the collector who has plenty of that commodity to spare, can of course write out full particulars of each set in the field. Never trust to memory in these matters, have it in black and white.

The collector, having returned home and being ready to prepare his eggs, let him take them out of his box where he has placed them well wrapped in cotton, as taken, and unwrapping them, place each set by itself on the "dryer" described elsewhere (he will now begin to appreciate that useful article.) now getting his tools, not forgetting a glass of water to use in rinsing the eggs, he is ready to go to work.

The points of the drills, as bought, are always dull, and it is recommended to start the hole in the egg with a pin or needle. These useful articles are small, likely to get lost while working with, and make one more article to look after. You can dispense with them by carefully filing the point of your drill to a needle-like point. Select the least showy part of the egg, and holding it (the egg) in your left hand (the right if you are left-handed) put the point of the drill against this "least showy part," and twirl it (the drill) between the thumb and forefinger. Don't bear on the drill, as if you were drilling in iron, if you do you'll have a hole clear through both sides of the egg, something you don't want. The hole, being drilled until the largest circumference of the burr passes inside of the egg, don't try to pull it out, as a broken egg will be the result if you do. There is an internal pellicle lining the egg: if this is not cut out where the hole is drilled, it will interfere with blowing the egg. By bringing the burr of the drill up against this

pellicle, as if you were going to remove it from the egg, and giving the same twirling motion that you did when drilling, the pellicle will be cut all around the edges of the hole, and the drill will come out. Now take your blow-pipe, and putting the point of it close to the hole, blow gently and the contents will come out. When incubation is more or less advanced, a larger hole must be drilled, and the embryo removed with the hook and scissors, a tedious operation and not always successful even with the greatest of care. Better let incubated eggs remain in the nest. A little experience will teach you how to differentiate fresh eggs from those that are too far advanced to save.

Never put the point of the blow-pipe inside of the egg, as a bursted egg will be the result, especially so, if your lungs are well developed. Having emptied the egg of its contents, the next step is to take a mouthful of water and inject it through the blow-pipe into the egg, rinsing it thoroughly. Large eggs should be filled half full of water and well shaken. Eggs treated in this manner are perfectly clean inside and offer no inducements to insects to harbor within, a thing that they will surely do in eggs prepared in a slovenly manner. Having blown all the water out of the egg, take a soft cloth and wipe it dry, removing any foreign matter that may be adhering to it, taking care, however, not to rub off the number you put on it when collected, and also notice that you do not rub off any of the markings on it. On some eggs the pigment is only loosely applied on the outside. Now place the egg, hole downwards, directly over one of the holes on your dryer, and it will drain and dry in a few hours; continue in this way until you clean all your eggs, keeping each set to itself and adding another memorandum in your note-book opposite each set, as to the state of incubation of that set. When the eggs are dry, fill out a data for each set. These particulars are taken from your note-book. Suppose he (the collector) takes the first set, that of the Red-headed Woodpecker. He will fill out a blank as follows:

No. 375. Name, Red-headed Woodpecker.

Collector, John Smith.

Locality, Boston, Mass.

Date, June 3d, 1887.

Set mark, $\frac{1}{4}$.

Number of eggs in set, 4. Identity, bird seen,

Nest, excavated in an elm tree, 20 feet up; eggs laid on chips on bottom of cavity.

The collector will of course substitute his own name, locality and date, for those given above, and if this should prove to be the second, third or fourth set of that species taken during the season, he would mark the set as 2-4, 3-4, 4-4 and so on.

(TO BE CONTINUED.)

Editorial.

So few exchange notices were received in time to be published in this issue that we have decided to hold them for the next.

* * *

Persons receiving sample copies of this issue, will oblige us greatly by acknowledging the receipt of same. We received so many replies from those complying with the above request, last month, that we thought it best to try it again. If you cannot subscribe, we like to know that you received the copy sent you, and what you think of our magazine.

* * *

The May "Hoosier Naturalist" published by R. B. Trouslot & Co., Valparaiso, Ind., will contain much matter of interest to all Ornithologists and Oologists. A sample copy will be mailed free to all applying to the publishers. We can furnish you with a year's subscription each to the "Hoosier Naturalist" and the "B. S. O." for 50 cents, the regular price of the latter.

[* * *

The April number of the "Hawkeye Ornithologist and Oologist" reached us just before going to press. We are sorry to see that the editors as well as Mr. Oliver Davie are laboring under a wrong impression. In the February issue when we published that notice regarding "Davies' Key," we meant exactly what we said, as Mr. Davie, in a letter dated Jan. 26, '88, said: "I can furnish you copies of my Key in quantities at——per copy." This notice was inserted simply to allay a wrong impression, which would likely arise after reading the notice in the Jan "H. O. & O.," and not as a "hit." As regards not having purchased any copies of Mr. Davie, we would say we had a number of copies on hand we wished to dispose of, and we were greatly surprised to see Mr. Davies' letter, after having written him explaining the reasons of our not ordering copies from him.

Publications Received.

Auk, April.

Ornithologist and Oologist, March.

West American Scientist, January.

Oologists' Exchange, March.

Agassiz Companion, March.

Hawkeye Ornithologist and Oologist, March, April.

The Pileated Woodpecker.

BY J. W. JACOBS, WAYNESBURG, PA.

On April 24th, I was passing through a large patch of woods, taking note of all the bird life I could see, when I noticed a large hole near the top of a "snag." I went a little closer, and then I saw that the hole was too large for a Red-head (*M. erythrocephalus*) or a Flicker (*C. auratus*).

I went up to the tree; there was a great pile of chips on the ground; I hammered on the tree, and a Pileated Woodpecker (*Hylotomus pileatus*) flew out, I climbed up, but owing to the tree being high, smooth bark and no limbs at all, I could not stick, so I resolved to call again, better prepared for an attack on the tree.

On the 28th, I started out to procure the set of eggs, if there proved to be any in the nest. Everything went well until I reached the tree, and there I could see that the hand of destruction had visited *H. pileatus*, for the tree was stretched out upon the ground.

Two wood-choppers had been in the woods the day before, making rails; they saw the old bird fly from her nest, and of course, through curiosity, they cut the tree down to see what the eggs looked like. I found the pieces of three or four egg-shells, and probably there were more. I did not find out how many they broke.

The hole was thirty-five feet from the ground, and such a fall as that would have broken a thousand eggs, had that number been in the cavity.

About two months later, I was in the vicinity of this tree, and saw in a neighboring tree a large hole resembling the first. I did not climb to the hole, for from all appearance, the brood had hatched and were gone. I think this hole was excavated by the same pair of birds.

On May 21st, I was collecting in a large strip of woods, about a quarter of a mile from town, when I saw in a live maple an excavation of *H. pileatus*. I climbed up and found the nest contained four young birds and one nearly fresh egg. This is a beautiful egg, glossy white, and measures 1.25x.95 inches.

During the time I was in the tree, both old birds were perched not far off, and every now and then would utter their harsh cackle.

Later in the season I found another nest of this bird; it was in a live maple, twenty feet from the ground. The young birds had flown.

A Day's Collecting.

BY H. C. COOK, POTSDAM, N. Y.

On the 23d of May, last season, my chum and myself started out for a good solid day's work in the field. We took our climbing irons, egg-boxes and a big lunch, for it has been our experience that it makes a fellow awful hungry to walk eight or ten miles and shin up as many trees before dinner.

About a mile from the village we came to a small grove of high timber. Just before we reached it, a crow flew out to meet us, circled over our heads and returned again, a sure sign of a nest. We had, however, considerable difficulty in finding it, as it was remarkably well concealed for so large a nest, in a beech about thirty-five feet from the ground. It contained five highly incubated eggs of nearly uniform size, but differing considerably in the ground color and markings. The average measurement was 1.60x1.12. Three of the eggs were dark green, marked with darker blotches, and the other two a much lighter green in ground color with the same colored blotches.

After leaving this grove, we passed through several orchards without finding anything until we came to the last one, where my chum spied a nest in a low apple tree. Approaching it carefully, we obtained a good view of the bird, which I at once knew to be a Black-billed Cuckoo (*Coccygus erythrophthalmus*.) The nest contained three dull green eggs, very peculiar in regard to size, as one was small, the next larger and the last measured nearly twice the size of the first. One was fresh and the other two in different stages of incubation.

We stopped here to blow our eggs and eat our dinner, as it was about noon. After we had accomplished this last most important duty, we continued our search looking here and there, but seeing no desirable nest, until it began to get rather discouraging, when, while hunting for the nests of the White-rumped Shrike (*Lanius ludovicianus excubitorides*) in a large field of thorn apple trees, skirted by a swampy woods, I made the great find of the day. I was passing by an old dead stump, when, from between the roots and almost under my feet, a brownish colored bird started up and flew away, making a peculiar whistling noise as it went. Looking down, I saw a fine set of four eggs of the American Woodcock (*Philohela minor*.) They were of unusual size, the largest measuring 1.85x1.10 in.

This ended our day's collecting, and we went home well satisfied with the fruits of our labor.

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Second.—A " " 4 " " "

Third.—A " " 4 " " Am. Long-eared Owl.

Fourth and Fifth each a set of 6 eggs of the Purple Gallinule or a copy of Davies' "Key" third edition.

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To the first person answering the above offer by sending in their subscription and stating plainly that you wish to try for a prize, we will give a fine set of four eggs of the Prothonotary Warbler, or a set of four of the Black Snow-bird. To the fifth person, we will give a set of four eggs of the Blue Yellow-backed Warbler. To the tenth person, we will give a set of 2 eggs of the Red-tailed Hawk; to the fifteenth, twentieth and twenty-fifth each a copy of Davies' "Key" 3d edition. We will also send every person wishing to try for a prize, and stating so in their letter, a few extra copies to use as samples.

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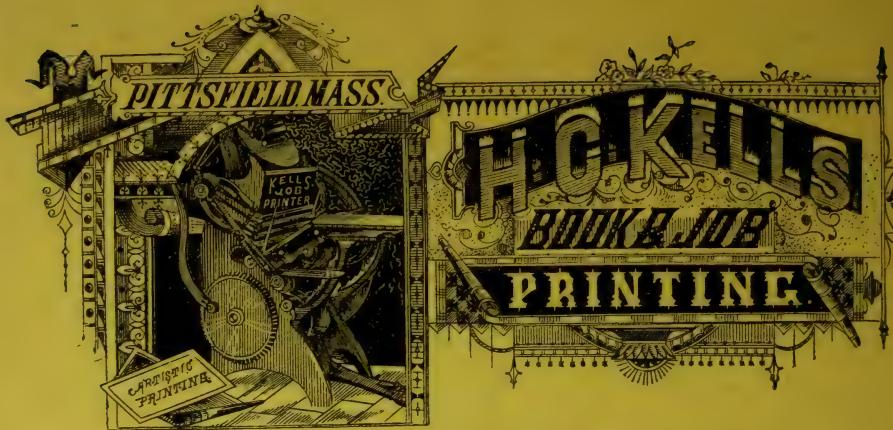
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EDITED AND PUBLISHED BY

W. H. FOOTE.

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the Study of Birds, their
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—EDITED AND PUBLISHED BY—

W. H. FOOTE,

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The STATE BAY OOLOGIST.

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VOL. I.

PITTSFIELD, MASS., MAY, 1888.

NO. 5.

My Set of *Haliaeetus Leucocephalus*.

BY LE GRAND THEODORE MEYER.

While comfortably seated in my home-like boarding place, with a good cheery coal fire, reading a southern paper, my eye chanced to light upon the following item: "For a number of years, a pair of Bald Eagles have nested within five miles of this city, near a negro settlement."

Being somewhat of a traveler, my mind was instantly made up; for I had long wanted to pass the winter in the south: and in looking over my fair collection of eggs, there always seemed to be an indescribable longing when I thought of how a set of Bald Eagle's would improve it, and how a rival collector asserted his claim to a set of two, obtained at a momentary risk of his life.

To go to Southern Georgia was my sudden resolve; so accordingly, I packed my valise, including a suit of overalls (necessary Oological instruments) and a .38 calibre magazine rifle, going more for sport than collecting.

A ride of three days brought me, figuratively speaking, from winter to summer for although they call it winter here, it little resembles ours, being more like a balmy spring instead.

Arriving at the little town of Hillsborough, I "put up" at their apology of a hotel, and commenced to ascertain the whereabouts of the noted tree. The people were just over their Christmas jubilee or festival, and were about to commence the country routine work.

I "tipped" my purse liberally to a number, but was unable to gain the desired information. The amazing lack of Ornithological love among the "masses" is certainly deplorable. I remember a natural history dealer, who was worried to death by inquiries about a window he had fixed with mammals and birds; the principal one being, "where did them Ostrich eggs come from?" They being eggs of the Com. Guillemot.

Resorting to my last means, I called upon the corpulent editor of the "Advertiser" in his sacred sanctum. He had been so informed by a "cracker" farmer who had been so told by one of his servants. The place had been nick-named "Negro-town," so to this place I turned my wandering feet. After trudging about five miles, I enquired at a low log hut, whether they knew of the nest. The versatile proprietor, an Ethiopian as black as a coal heaver, replied: "Sutinly suh, sutinly. Hit's a fac'! De nest am 'bout a ha'f-mile from hyah. If you wish, we kin ride ober an' see it."

We mounted a pair of razor-backed mules and went on our way through the stunted and straggling undergrowth. "Yes! dey hab done used de same nest for neah as I kin rekkerlect; foh, lemmee see, about twelve, fohteen years."

Upon approaching the tree, (an aged sycamore) we found the upper part, where the nest was situated, to be dead, probably to better enable the parent to view the surrounding territory. Many ignorant persons suppose the birds kill the tree; so I addressed this query to my guide: "How is it that the trees are always dead?"

"Oh! de bird always kills de tree" (I suppose he noticed an incredulous look); "hit's a fac', foh I hab seed foah trees, an' they were all dead."

It was plain to be seen that the nest was genuine; so I secured board at my guide's mansion (?) and determined to await proceedings. With naturalistic delight, day after day, I would sit hidden and watch the Eagles (the King of birds and our national emblem) sail gracefully for over fifteen minutes without flapping their wings.

Meanwhile, the nest, which was about the size of a bushel basket, rapidly grew by additions, until in outline it far surpassed the original size. For two days I did not see either of them, except the male fishing at a neighboring lake, a mile away. Rising earlier than common one morning, I saw the two magnificent birds eating their breakfast of fish, which was presumably brought by the male.

The female crouched in the nest and away flew the male to his lonely perch. "Well, old lady, I suppose you are about to lay your treasures; so I'll not be selfish but wait and let you keep them a week, thereby I'll be more likely to get a full set. I'll not kill the goose to get the golden egg."

Meanwhile some startling revelations were taking place. One evening, while eating my supper, and the hostess would tempt the fleeting appetite of the daintiest

epicure with her biscuit, honey, milk, ham and eggs, Pompey said: "Mistah My-ahs, 'peers like de people tink dat you am gwine to take our Eagles' nest, and dey want me to tell youh dat dey will tah and fedder youh if youh do. Foh it would bring on a plague on us if hit was destroyed."

I was thunderstruck; but I might have suspected it among such a superstitious, ignorant people. However, I managed to stammer out, "Oh! you are mistaken, Uncle Pompey, for I am just sketching the nest." This appeared to satisfy them; but how to get the nest was the next perplexing question.

Two days before the week ended I shot the male, while he was perched on a tree watching an Osprey fishing. To prepare the skin was the work of an hour, and rolling it up carefully, I concealed it on my person, thereby running the gauntlet and succeeding in getting it safely locked in my satchel.

The only way I could conjure up to get the eggs was by a night attack; so leaving my window up on retiring, I laid down to rest until I was sure Pompey and Dinah were asleep. I had not long to wait, for about ten o'clock sounds came issuing from their chamber which would remind the uninitiated of the starting of some heavy freight-train. Carefully and noiselessly taking my climbers, a bag which I had lined with cotton for the eggs, and my rifle, I started for the tree.

The night was as dark as one would wish for; but in my stay I had become so familiar with the surroundings that I easily found the nest. Putting the rifle against a tree, the bag in my pocket, and the climbers on, I commenced the ascent. The tree would have proved by day almost inaccessible to the daring collector; but the thought of the valuable treasure beyond and its benefit to science nerved me to the deed.

Nearly exhausted, I finally reached the first limbs, where I recruited my weakened strength. Upon again starting upwards, I heard the female leave the nest with a "swish." With agonizing suspense I listened, thinking that perhaps on her hasty exit she would push out the eggs, owing to the shallowness of the nest; but nothing dropped. At last I came in reach of the nest; clutched and felt one, two—"Great Scott!"—three warm eggs. Was a collector ever so blest? I am sure if it was not for the slenderness of my perch, seven-five feet from "terra firma," and fearing of the consequences arising from awakening the natives, I should have fairly howled with delight.

Putting the eggs in the bag, I lowered it by a string to the ground. Once I slipped but saved myself by catching on a limb and without further accident reached the ground. The eggs were pale white in color, measuring .3x2.52; 3.02x2.51 and 3.05x2.54. Date, Feb. 19, '81. Next day I bid my colored friends a tearful (?) farewell and was soon home again after having a delightful recreation of four weeks.

Instructions for Collecting and Preserving Birds and Eggs.

BY PROF. J. A. SINGLEY, GIDDINGS, TEXAS.

(continued from page 29.)

He will mark every egg of that set $376\frac{1}{4}$, using a soft pencil, making legible figures, not too large, and putting them close to the hole in the egg. Never deface an egg by writing the date on it; the above is all that is admissible on a first-class specimen, and accompanied by the data is all that is necessary. If the collector reserves only one egg of the above set, sending out the others to correspondents in exchange, every egg sent out should be accompanied by a data, a copy of the original one made out for the set.

A few words now about forming a collection. Are you collecting haphazard, anything and everything, just so you can say that you have more eggs than the "other fellows?" If you do collect in this way, I'd advise you to quit at once. Do you collect, getting only the prettiest eggs, and having them under glass to look at? The Bower Bird of Australia, builds bowers and ornaments them with pearly shells, bright colored feathers and other decorative material, and no doubt derives as much benefit from its collection as the collector who wants only the "prettiest" eggs. If you collect, however, to learn something from your collection, to make comparisons between the eggs of different species, to note the variations in eggs of the same species, to study the birds themselves in field, forest and closet; then I say, go ahead, collect in sets and in series of sets, always have your material for study well authenticated and your collection will always possess a scientific value as well as a pecuniary one, and you cannot be classed with the collectors who have been rather inelegantly called "egg-hogs."

A few words about exchanging and I will close this article. Always use tin or wooden boxes in which to ship eggs. Cigar boxes need a cleat nailed inside on the ends to keep the lid from being broken in. Large boxes will also need a partition put in to strengthen the box and obviate packing two many eggs together. Roll each egg separately in cotton and pack them so they will not shake about in the box, but not tight enough to crush them when the lid is put down. Don't put data or other writing in the box if it is to go by mail, and don't nail the lid down, simply tie it with a string. Use some current price-list as a basis of exchange, and send the data to your correspondent in your letter of advice. Don't wrap thread or tissue paper around eggs after you have wrapped them in cotton. Your correspondent will want to swear if you do, at least the writer hereof has

been strongly tempted to do so, when unwinding yards of thread from the eggs, or undoing nicely done up packages, perhaps, an invoice of an hundred eggs or more, and each one wrapped and tied like a package of dry goods or groceries. This practice of doing up eggs begets profanity and broken eggs. Trusting I've made things so plain, that "he who runs may read," I am,

Oologically yours,

J. A. SINGLEY.

Notes on Some of the Winter Birds of Chester County, Pa.

BY W. L. MARIS, WEST CHESTER, PA.

One of the prettiest little birds, which braves the snow and rain of our ever-changing winters, is the Black-capped Chickadee (*Parus atricapillus*). Common as this bird is, yet how glad indeed is the Oologist who has had the fortune to secure a set of its eggs, himself, and how many are the weary, although pleasant hours I have searched for them.

A few years ago, a row of evergreen trees, in a property adjacent to my home, were constantly occupied by a flock of Chickadees, and one would forget how cold it was, watching them playing with each other what seemed to be merry games. A beautiful set of six eggs of this bird, which I have in my collection average .60x.47 inches.

Among the foremost of our winter birds is the Common Crow (*Corvus frugivorus*), and a very noticeable one in our winter landscape. During the present winter, they have been very tame, often venturing within thirty feet of the house.

The Downy Woodpecker, (*Picus pubescens*) commonly called "Sap-sucker," I often see pecking away at an old willow tree out in the yard. He is the dwarf of his family, and may be distinguished by his size from all the other Woodpeckers in this locality. He is often disappointed as to his home, for frequently does an impudent House Wren, having watched the process of house making or rather excavating, drive him away and take possession of the place in his own name; and I also, was disappointed in a case of this kind. I had for several days been watching the excavation of a nest by a downy Woodpecker, and had already imagined five or six beautiful white eggs lying snugly packed away in my collection, when one morning on visiting the nest, you may imagine my surprise and vexation at finding a plucky House Wren now occupying the home of my Downy Woodpecker.

The Owl line is represented in winter by the Long-eared Owl, the Great Horned Owl and the Little Screech Owl. Concerning the latter bird, a peculiar instance of its unwillingness to leave a spot which it has chosen for its home, returns to my mind. A pair of these birds have for at least four years had the same nest in the hollow of an old apple tree, and just as regularly as the female would lay a set of eggs, they were taken by a person in the neighborhood. Does it not seem strange that a bird should continue to lay eggs in the same nest so many years, after having been continually robbed of its eggs? And it certainly must have been the same bird, for surely three or four different pairs would not select the same place in successive years for breeding purposes.

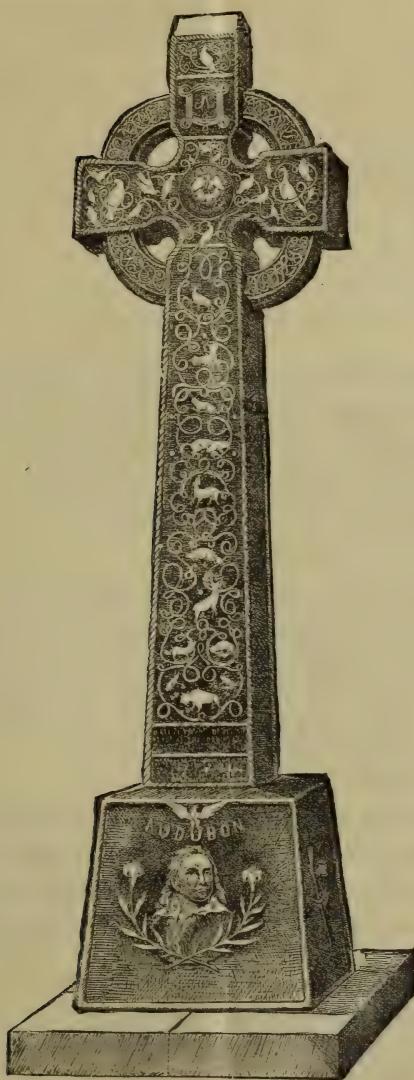
The Black Snow-bird (*Junco hyemalis*) is generally quite abundant during the winter. This little bird is a favorite with everyone, and deservedly so. We all enjoy its pleasant chatter and pleasing ways as it hops about in search of food.

The noisy English Sparrows, of whom we all know a great deal, are always with us. Several pairs annually build about our stable, and I destroy, on an average, seventy-five eggs a year from these nests. If all our Oologists do their part, we certainly can do something to prevent the rapid increase of this little pest.

Hawks are abundant, although perhaps not so much so as before our state legislators passed our famous "bounty law." During the two or three years of its existence, Pennsylvania paid as bounties for the slaughter of Hawks and Owls almost one hundred thousand dollars (\$100,000.00), besides suffering untold injury from their destruction.

The White-breasted Nuthatch (*Sitta Carolinensis*) is another very interesting resident; but, as in the case of the Chickadee, its nest is seldom found here. Last year one was discovered, but upon being opened it was found to contain but two eggs. It was in a tree along the border of the woods, and was about twenty feet from the ground.

OUR PRIZE OFFER.—Owing to the delay in getting out the April number of our magazine, we have decided to fix June 15th as the date of closing our offer, in place of June 1st. This change of date will give those who desire to try for a prize a longer time to work in, and we hope our friends will send us in a goodly number of new subscribers before the date of closing. The names of the winners will be published in the July number instead of the June, as before stated, and prizes will be forwarded June 20th. Do not fail to read the whole of our "Prize Offer," which you will find listed on inside back page of cover.



The Audubon Monument.

No doubt most of our readers have heard of the proposed monument to be erected to John James Audubon, whose remains rest in Trinity Church Cemetery, New York City. The design selected is represented in the accompanying engrav-

ing. A few changes will be effected in regard to ornamentation. The cost of the monument is estimated at about \$10,000, which sum it is hoped can be raised by subscription from all parts of the country and to represent naturalists of every branch of study. Contributions may be sent to Dr. N. L. Britton, Treasurer, Columbia College, New York City, or to Wm. Dutcher, 51 Liberty Street, New York City. All contributions will be permanently recorded and published.

Editorial.

With this issue, as stated last month, we enlarge to 12 pages, besides greatly improving the typographical appearance, general makeup and contents. We do not guarantee 12 pages each month for the year, but if we receive a fair amount of support, we shall have 12 and perhaps 16 pages each month. Why not send in your subscription and help us improve our magazine.

* * *

The first paper, (that of "Collecting and Preserving Eggs") of Prof. Singley's article on "Collecting and Preserving Birds and Eggs," ends in this number. The second paper, that of "Collecting and Preserving Birds," will commence in the June or July number, and we can truthfully say that this article alone is worth more to you than the subscription price of our magazine.

* * *

Hereafter, we shall have in each number of the B. S. O. some article on Massachusetts Ornithology and Oology and in order to carry out this project, we desire to have all our friends, who are interested in this study of the Bay State to help us by sending in any notes or other matter of value, they may possess.

Publications Received.

Agassiz Companion, III, No. 4, April, 1888.

Agassiz Record, I, No. 3, March and April, 1888.

Oologists' Exchange, I, No. 4, April, 1888.

Ornithologist and Oologist, XIII, No. 4, April, 1888.

West American Scientist, IV, No. 2, Feb., 1888.

Collecting in New York.

BY H. A. CARHART, COLLAMER, N. Y.

I do not often see any notes from collectors in the central part of New York, where I live, so I will try to say something to show that there are friends here. There are some here who could furnish the journals some valuable matter if they choose. I have never had the fortune to have any special incident happen which would of itself be deemed of enough importance to merit a "write-up." Perhaps it would be of more interest to readers in other states to hear of our "every day" collecting than of some extraordinary adventure.

I remember, just now, a trip which I took into a locality not far from here, but at that time, new to me. I was, as usual, accompanied by a friend. We arrived early and began our tramping, up what was probably at some former age the bed of a river. It was now thickly wooded most of the way and in places had grown up so thickly with bushes and brambles that it was with difficulty we made our way through it. The banks were very steep, and a small creek flowed at the bottom.

It was a capital place for birds, and the air was filled with the songs of many species. A little further up nestled a small lake in a spot where the valley widened. On the borders of this lake were many marshes and the cat's-tails which had grown there teemed with hundreds of Red-and-Buff Shouldered Blackbirds. Marsh Wrens were here too. Grebes and other water fowl were said to breed here occasionally, but we saw none of them. A Catbird's nest was found in some bushes growing out of the face of an almost perpendicular cliff. Although we were not wanting any Catbirds' eggs the novelty of the position caused us to climb for them.

We quenched our thirst at a well which was fitted up with the most primeval kind of pump we had ever seen. The water-bucket was raised by being balanced by a large stone attached to a rope which wound around a beam overhead. We ate our dinner in the doorway of a barn, and hearing the swallows under the eaves, we got a ladder and examined the nests, but found no eggs.

Taking a boat, we poled it around among the cat's-tails, and were rewarded by a goodly number of Red-and-buff-shouldered Blackbirds' eggs. Seeing a sandy bank near by we investigated some holes, which yielded us some Bank Swallows' and Kingfishers' eggs. The occupants of these nests were invariably "at home."

As the afternoon shadows began to fall, we started leisurely back, amusing ourselves by occasionally shooting out over the water to see the shot splash; or straying from the road to examine some geological specimen, with which the country abounded. We reached home tired, but ready to try it over again the next day.

Notes on Some Birds of Texas.

BY J. A. SINGLEY, ESQ.

(continued from page 26.)

No. 60. *Thryothorus ludovicianus* (*Gm.*), Carolina Wren.

Another of our resident species, and one of no mean musical ability, is the Carolina Wren. This species is found everywhere, in bottom and upland, and about dwellings on the prairies, filling about the same place here that the House Wren does in other sections of the United States. It is by no means common, and a pair of them are rarely found except during the breeding season, when their loud whistling song betrays them. This song, by the way, resembles very much that of the Cardinal Grosbeak, and being equal in volume to the song of the latter, it is sometimes hard to tell which bird really is singing. A specimen before me—a male—measures: length, 5.97 inches; extent, 7.37 inches. The upper parts are reddish-brown, paler on the head. The feathers of the rump, when disturbed, show white spots. Wings and tail, same color as the back, obscurely barred with dusk. On the specimen in hand, the bars are broken up into nebulations. Below, the throat is dull white; from throat to tail it is of a rusty white, changing to reddish-brown on the under tail coverts.

This species is easily satisfied in its choice of a nesting site. I have found nests on the corners of rail fences, on horizontal limbs at their junction with the body of the tree, in old boots laid on a shelf, in an overcoat pocket, on the ground under a bush, in a hollow log and in the interstices between the logs of a cabin. An old "nigger quarters" being a rich field when collecting this species. If they build in a roomy place they will sometimes pile up a half bushel of trash, and somewhere in this mass the nest will be found, composed of fine grasses, leaves and feathers, generally with a lining of horse-hair, sometimes only feathers. The eggs vary in number from four to six, generally five; reddish-white, marked with numerous reddish-brown spots, never blotched. The spots are nearly always thickest at the larger end, often forming a wreath, and sometimes concealing the ground color. Obscure shell markings of lilac are common at the larger end, and in some eggs the brown is nearly suppressed, a few spots only being scattered over the egg. The larger end, however, being deeply marked with the lilac. Davie in his "Key" gives the average size of twenty specimens as .74x.61. My average of ten eggs is .73x.58.

No. 140. *Lanivireo flavifrons* (Vieill.), Yellow-throated Vireo.

A rare summer resident in this locality of which I have found only five nests during my collecting. Two of these were found in the bottoms—one of them in a pinoak tree 25 feet up—the others in the uplands, in postoaks, from eight to fifteen feet from the ground. The few birds of this species that I've taken were found indifferently in upland and bottom. I have had little opportunity to notice the habits of the species, owing to their scarcity, but they seem to prefer the open wooded portions, alike in this respect to another Vireo to be treated of later on. It is a musician of no mean attainments, as can be testified by those who have heard it during the spring. It is one of the largest of our Vireos, measuring from 5.75 to 6 inches in length. Extent, 9.50 to 10 inches. Olive green above. Throat and fore-breast, bright yellow, (hence the name yellow-throated) changing to white on the belly and under tail coverts.

The nest, as usual with the genus, is pensile; composed of fine grasses, bits of rotten wood, moss and fragments of leaves; the whole neatly put together with cobweb. Authorities state that the nest of this species is adorned on the outside like the nest of the Humming-bird; but all the nests I've found could not be differentiated from those of the other Vireos, being perhaps, a trifle larger. The eggs, as is usual with the family, are white, marked on the larger end (and sometimes sparingly over the entire surface) with brown. Number, three or four in a set, and average size of four eggs in my collection is .74x.52 inches.

No. 135. *Vireosylvia olivacea* (Linn.). Red-eyed Vireo.

Another of our summer visitors also rare here, and like the Yellow-throated Vireo preferring open woodlands. A good singer and oftener heard than seen. The bird wears the usual dress of the genus; olive-green above; top of head ash-edged with a blackish line, below this a white line over the eye; under parts white shaded with greenish-yellow along the sides. Length, about 6.00 inches; extent, 10.00 inches or over. The only nest of this species I've taken is now before me. It was taken out of a small blackjack oak, pensile in the fork of a small twig, about six feet up and contained four eggs. The nest is composed of strip of bark, weeds, small pieces of rotten wood and green moss. The outside is covered with the moss and a few lichens, fastened together and to the fork with caterpillar silk. The lining is done with a lot of thread-like brown rootlets. The eggs are white; marked about the larger end with dark brown dots, and several larger spots of same color. Having but the one set, I can say nothing of the variations. The average of these four eggs is .79x.58 inches.

Nesting of the Nashville Warbler in Fulton County, Ill.

BY PHILO W. SMITH, JR., GREENVILLE, ILL.

This beautiful little warbler is among our early summer arrivals, though nowhere over abundant; still, a number remain here to breed. My first acquaintance with it was in the Spring of 1879. It was a lovely day, the 12th of May, when Prof. John Wolfe (State Botanist) and myself started out from the town of Canton on a day's hunt after rare plants and eggs.

We had proceeded about two miles in a south-westerly direction, when we came to a large clearing (on a hillside in the timber) covered with hazel bushes.

As there were a great many Chats about, we began to look for their nests, and were meeting with very good success, having secured about twenty fine sets, when the Professor flushed a small bird from the foot of a hazel bush a few feet in front of us. It uttered a few quick notes and hopped about, showing by its uneasiness that its nest was not far off. While it was going through its performance, we had plenty of time to thoroughly identify it, and my friend at once pronounced it to be a Nashville Warbler (*Helminthopaga ruficapilla*).

We retreated a short distance and on coming back saw her (as I afterwards proved it was a female) on the nest. That is: we saw a very small part of her, as the nest was so deep that only the tip of her tail and her bill were visible. On approaching, she left the nest and disappeared and was not seen again by us. The male never once showed himself all the time we were thus engaged.

The nest was placed in a hollow at the foot of a hazel bush, nearly covered over with dead grass and leaves, and was composed of grass, weeds, rootlets and shreds of bark from the grape-vine; lined with fine grass and horse hair; the whole being placed on a thick bed of leaves. The nest was deep and cup-shaped, resembling that of the Maryland Yellow-throat although a trifle larger and more frail in construction.

The eggs were fresh—six in number—about the size of House Wren's. Before blowing the eggs, the ground color had a pinkish tint which faded away into cream after blowing. They were sprinkled sparingly over the entire surface with minute reddish and purplish specks, although larger and more numerous at the larger end.

We secured four sets the same day. Up to the present date, I have secured twenty sets of eggs of this Warbler, and find the nests and location to be about the same as the one described. The average number of eggs in a set is 5; sometimes 4 and even 6 eggs are laid. I am convinced that but one brood is raised in a season.

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To be entitled to any of the first five prizes, you must (if not already a subscriber) send in you subscription with your first list. Subscriptions mailed from your office July 14 will count, but not later. The names of the winners will be published in the June B. S. O. and prizes forwarded June 20th.

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EDITED AND PUBLISHED BY

W. H. FOOTE.

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The STATE BAY NATURALIST.

VOL. I.

PITTSFIELD, MASS., JUNE, 1888.

NO. 6.

The Black-and-White Warbler, (*Mniotilla varia.*)

BY WM. L. KELLS, LISTOWEL, ONT., CAN.

This species, in some of its food-seeking habits, resembles the Brown Creeper, for which reason it has, until lately, been denominated the Black-and-White Creeper. It also frequents much the same situations, though it does not penetrate so deep into the forest: but is often, especially in spring-time, observed on the outskirts of the woods and in new fallows, where the other species of Creeper is never heard or seen. Its movements, while in quest of its insect food on the trunks of trees, are generally in a circular manner, and its mode of procedure, rather a series of hops, than creeping jerks. It will also run out along the branches and cling to a limb with its feet, suspended back downward, while searching for the prey that may be concealed in the crevices of the bark. Its food-seeking employment is often varied in the early season by its perching on a small branch and warbling its song in a cheery and pleasing manner. At other times it will alight upon the ground and feed upon the various species of insects that it finds there and again it may be seen running along old logs or among fallen brushwood, foraging for food, or seeking a nesting place, or material for its nest.

It arrives in this vicinity about the middle of May, and for a time it may be observed pursuing its various avocations, in company with many other small birds, along the fences and the borders of the woods. As the season advances, it seems to prefer to glean more amongst the higher timber, though it is never very

shy, or manifests much alarm at the approach of human kind, and when incubating the female will remain upon the nest until she may be caught, or almost trodden upon before she flushes. When nesting or incubating, she remains very quiet, so that the nest might be within a few feet, and yet the person not be aware of the bird's existence; but as soon as the young begin to assume their nesting plumage, the old birds soon betray their nesting place by their noisy notes.

The nesting sites of this species are much similar to those of the Slate colored Junco, and Connecticut Warbler, being either in the root of a fallen tree, or the side of a small bank, or root of a bush, or some other partially covered spot, somewhat like that of the Oven-bird. This is generally formed of some fine materiels, as dry leaves, bits of moss, fibres of bark, fine, dry grass, rootlets, and different kinds of hair. The set of eggs numbers four or five: these are of a creamy-white hue, dotted around the larger end with a circle of pale reddish-brown spots. In size they average .63x.53 inches. The bird itself is about five inches in length. The plumage on the upper parts is black and white, in alternate specks. The lower parts are white, the tail is spotted, and the wings are barred.

The Blue-Gray Gnatcatcher.

(*A series of sets.*)

BY J. W. JACOBS, WAYNESBURG, PA.

The Blue-gray Gnatcatcher (*Polioptila cœrulea*), is quite common in this locality, although its nest is hard to find, owing to its close resemblance to mossy knots, which abound on the limbs of trees in which it breeds. I found my first nest of this species for 1887, on May 7th. It was placed in a sort of slanting fork, about twenty feet from the ground, and was composed of bits of wool, grass, moss, etc., covered on the outside with small bits of lichens, stuck on with cobweb, and was lined with small stems and fine grasses. It contained three eggs of a pale green color, thickly covered with small specks of brownish and blackish red. Average measurement, .56x.37 inches.

SET II. This set was taken on May 10th and contained four fresh eggs of its own and one of *Molothrus ater*. Nest composed of plant down, hair, fine twigs, etc., lined with fine grass and covered on the outside with lichens. It was built on a last year's nest of the same species, situated in a walnut tree, thirty-five feet from the ground.

SET III. Consisting of three fresh eggs, collected May 14. This nest was composed of the usual materials and was placed twenty feet from the ground.

SET IV. Collected May 15th. This set contained three fresh eggs. Nest composed of the usual materials and was situated about twenty feet from the ground.

SET V. This set was secured May 19th. This is the finest set in the series, consisting of five eggs, slightly incubated. The nest was a slight affair, the inside measurements being $1\frac{1}{2}$ inches in depth and an inch in diameter. It was composed of fine gray feathers, wool and downy substances; lined with fine grass and covered on the outside, as usual, with star-shaped lichens. It was placed in a locust tree, fifteen feet from the ground. This set now occupies a favorite spot in my cabinet.

SET VI. This set, consisting of two eggs of its own and one of *Molothrus ater*, was collected May 22. Incubation had commenced and the presence of the Cowbird's egg was accountable for an incomplete set of *Polioptilo cærulea*. The nest was composed of the usual materials, and was placed fifteen feet from the ground in a small walnut shrub.

SET VI. This is a fine set of four eggs, collected on May 31. The nest was a slight affair, with scarcely any bottom. It was placed on a large horizontal branch of a walnut tree about thirty feet from the ground. Nest composed of grass, moss, downy substances, lined with fine grass.

I have collected as many as three sets of eggs from one pair of birds. Each time I would return in a few days, to find them building in the immediate vicinity. Their patience was always rewarded by being allowed a final set for incubation.

Many times I have found abandoned nests with an extremely large egg of *Molothrus ater*. At other times I have found nests containing slightly cracked eggs of their own, and a perfectly sound egg of the Cowbird. Have also found nests containing a single bird, and that of *Molothrus ater*.

Notes on Some Birds of Texas.

BY J. A. SINGLEY, ESQ.

(continued from page 43.)

No. 142. *Vireo atricapillus* (Wood.), Black-capped Vireo.

Of this rare Greenlet, I have taken no specimens in this county, and but one elsewhere, but as it may occur here I include it. The bird is dressed in the regulation olive-green and white. Top and sides of head, black. Length, 4.75; extent, 7.25 inches (Couch.)

I found a nest of this species in Bastrop County, Texas, in May, 1887. The Colorado River, in the above county, is bordered in places by high bluffs; on top of one of these bluffs, among the scrub pines, I found the nest, differing only from others of the genus I'd found, in the material, which was pine needles and short green moss, with a few fragments of rotten wood. No distinctive lining to the nest could I see, unless a small piece of moss in the bottom could be called such. The materials were put together with the indispensable cobweb.

The eggs were four in number, of a pure white color. The set is not now in my possession, and not having measurements of the set, I give Davie's, which are .67x.52 inches.

No. 143. *Vireo novaboracensis* (Gmel.), White-eyed Vireo.

A common summer resident, arriving in March and leaving us in October. The species differ in habit from others of the family observed here, in preferring the thickest part of the jungle, and consequently is seldom found away from the bottoms; a few, only, being found in the brushy uplands. The bird is bright olive-green above; yellowish on the rump; below white; the sides bright yellow. Length 5.00; extent, 8.00 inches.

It cannot be said to possess any musical ability. A few notes, emphatically repeated in quick succession, is all I've heard, but its scolding organ is well developed, and it empties out the vials of its wrath as long as the obnoxious object remains in the vicinity of its nest. Nidification commences early in April, and from the fact that it is only during that month that eggs are found, I presume that but one brood is raised during the season.

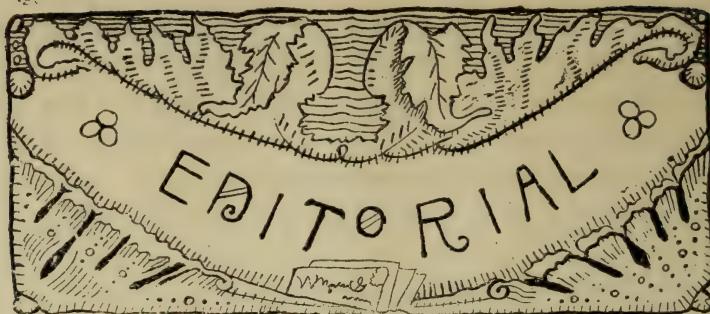
I once found a bird of this species building its nest, and as it had always been a mystery to me how they managed to swing the purse-like nest to the forks, I did not neglect the opportunity to learn their method, and so I stationed myself

in a convenient position. One of the birds was working at the nest and the other close by was uttering its quick notes; both of them desisted from their occupation and coming closer to me, gave me a downright good scolding. As I did not talk back, they finally gave me a good examination, and being motionless, they probably took me for a new strange growth and resumed their work. One of the birds, the female no doubt, would fly to where a colony of caterpillars had built a large globular web, and taking as much of the silk as possible in her bill, would return and work it around the twigs and also across the twigs from one to the other, forming a bridge. This was kept up for some time, until the bridge, being strong enough, a few fragments of leaves and grasses were placed on top of it, and the bird, getting on these, pressed the whole thing down between the fork. This they kept up for some time, occasionally adding some of the caterpillar silk to places where the strain appeared to be too great, and in a couple of hours the nest was "bulging" downwards considerably. The male took no hand in the building, but after each addition to and pressing down of the structure, he would come to the nest and a good deal of Vireo talk was indulged in. He was probably bossing the job. I would have liked to watch them all day, but time was precious and I had to leave.

The nest was composed of leaves, grasses, pieces of rotten wood, lichens and moss, and lined with fine grasses. Three to four (never five) eggs comprise a set, most often, four. The eggs are pure white, spotted with vandyke brown. In some eggs, the spotting is nearly uniform over the whole egg; in others, only a few faint, small spots are seen, thus preventing a wide range of variations. Size, .75x.57 inches. This species is one of the foster parents of the Dwarf Cowbird. Fully one-half of the nests examined contain either eggs or young of that species.

Continued.

(TO BE CONTINUED.)



Having decided to change the name of our Magazine, we complete volume 1 with this number, with which we furnish a complete index. Next issue will appear as the "AMERICAN ORNITHOLOGIST AND OOLOGIST" and will contain at least 16 pages of choice reading matter from the pens of many prominent Ornithologists and Oologists.

It will be printed on good stock paper, in the finest manner, and will contain many engraved headings, and, if possible, an engraved cover design. The subscription price will probably be increased; but all subscriptions sent in before the first number appears will be received at the old rates of fifty cents per annum, strictly in advance. Our "Exchange and Want" department will be open to all subscribers, free gratis, one notice each month. To persons not subscribers, the price will be 25 cents for a notice of twenty-five words or less. Notices containing more than twenty-five words a charge of $\frac{1}{2}$ c. for each extra word will be made.

* * *

Our prize offer did not turn out to be as great a financial success as we hoped; but we are entirely satisfied with the result, as we know, that at this time of the year, collectors are busy in the field and do not have much time to look up subscribers for papers. In the next number we shall offer a new set of prizes, and we hope our friends will have better success.

For the prizes for the persons securing the largest number of names for us, Mr. B. F. Taylor, of Columbia, S. C., was the only person who sent in any names. Of course Mr. Taylor carries off the first prize without a struggle. The second set of prizes received a little more attention. The first prize, a set of four eggs of the Prothonotary Warbler, goes to Dr. W. C. Avery, Greensburg, Ala., whose subscription was sent first. The second prize, a set of four eggs of the Blue Yellow-backed Warbler goes to Mr. James S. Zoller, Greensburo, Ind., whose subscription was the fifth received. The third prize, a set of two eggs of the Red-tailed Hawk, goes to Mr. Frank T. Sterling, Cutchogue, N. Y., whose subscription was the tenth received. The fourth prize, a copy of Davies' Key, goes to Mr. S. A. Taft, Aiken, S. C., whose subscription was the fifteenth received. The fifth prize, also a copy of Davies' Key, will either go to Mr. Alex. R. Taylor or Albert R. Heyward, both of Columbia, S. C., their subscriptions coming in the same letter. We shall endeavor to make everything satisfactory to both of them.

Publications Received.

AGASSIZ Companion, III, No. 5, May, 1888.

AGASSIZ Record, I, Nos. 4-5, May-June, 1888.

BIRDS of Kansas, A Revised Edition of, by Col. N. S. Goss.

HOOSIER Naturalist, III, No. 3, May, 1888.

OOLOGISTS' Exchange, I, Nos. 5-6, May June, 1888.

ORNITHOLOGIST and Oologist, XIII, No. 5, May, 1888.

STRUCTURE of Birds in Relation to Flight, with Special Reference to Recent Alleged Discoveries in the Mechanism of the Wing. Paper read by Professor J. A. Allen, before the New York Academy of Sciences.

WEST American Scientist, IV, Nos. 3-4, March-April, 1888.

The Nesting of the Red-breasted Rail.

BY B. F. TAYLOR, COLUMBIA, S. C.

This bird was thought for a long time to be the same as the Clapper Rail, and it was not known otherwise, until Audubon compared the two. The Fresh-water Marsh Hen is never found in salt-water marshes, but inhabits fresh-water marshes around inland lakes and ponds. It is very much prized by hunters, owing to the delicate flavor of its flesh.

The nest of this bird is placed among bushes, or in a tussock of grass, on some patch of rising ground in a marsh, or near the shore of some lake or pond. It is generally placed on the ground and is about six inches thick. The nests are always constructed of coarse marsh-grass, and are very flat on top. The female lays nine or ten dunn-colored eggs, sparingly spotted with lilac and brown all over the surface, but chiefly at the larger end.

The food of this bird consists of snails, tadpoles, small fish, grass seed and grain, the latter whenever they can get it. They habitat the same locality the year round, selecting the same nesting site, and sometimes occupying their last years nest, if they had not been disturbed. Only one brood is raised during the season. The young leave the nest as soon as they are hatched.

CORRESPONDENCE.

FROM MICHIGAN.

One bright morning in the latter part of April, 1887, I threw my climbing-irons over my shoulder and started on a day's outing with the Hawks and Crows. I reached the timber about 10 A. M., and on entering it, my attention was at once attracted by a large nest situated well up in an oak tree. It proved to be a Common Crow's nest, containing five fresh eggs. Packing these carefully in a strong wooden box, I started on and had not gone far when I came upon another Crow's nest, containing one egg; this I left for a larger set. From here I crossed a field to a railroad, along which I tramped for nearly two miles, then seeing a large growth of timber in the distance, I struck out for it, and after passing through a number of swamps I reached it. The first thing my eye rested upon was a nest of the Red-shouldered Hawk, situated in a large beech. The nest rested partly against the trunk of the tree and partly on a large, horizontal limb. It contained two fresh eggs. About one hundred yards from this nest I took another set of the Crow.

On my way home, I found a Crow's nest occupied by two half-fledged Owls, and also another Red-shouldered Hawk's nest, which, unlike the other, was situated in a large elm, ninety feet from the ground. After a tedious climb, I was rewarded with one egg.

The sun was fast working its downward course, warning me of the near approach of evening, so I turned my steps homeward, tired, footsore and hungry, yet very well pleased with my day's collecting.

WALTER WOOD, Detroit, Mich.

FROM INDIANA.

While digging a gas-well in this city, the workmen broke some part of the machinery and had to quit work for a few days. During that time a pair of Bluebirds built a nest and laid two eggs in the sand pump. After the nest was removed and work commenced again, the birds remained on the derrick for nearly two days.

JAS. S. ZOLLER, Greensburg, Ind.

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